SYLLOGE
FUNGORUM

OMNIUM HUCUSQUE COGNITORUM

DIGESSIT

P. A. SACCARDO

VOL. XVII.

SUPPLEMENTUM UNIVERSALE

Pars VI.

HYMENOMYCETÆ – LABOULBENIOMYCETÆ

AUCTORIBUS

P. A. SACCARDO ET D. SACCARDO FIL.

ADJECTA EST BIBLIOTHECA MYCOLOGICA AUCTORE J. B. TRAVERSO

Fol. 69 — Pretium it. lib. (francs) 69

PATAVII
Die 25 Maji MCMV.
SUMPTIBUS P. A. SACCARDO
TYPIS SEMINARII
Iterum impressum
apud
R. Friedländer & Sohn
Berlin

PIÆ MEMORIÆ

AUGUSTI NAPOLEONIS BERLESE

BOTANICES PROFESSORIS

DE SCIENTIA MYCOLOGICA

TAM SYSTEMATICA QUAM BIOLOGICA

MERITISSIMI

MYCETUM DELINEATORIS EXQUISITI

AMICI OPTIMI

HEU PRÆMATURE EREPTI

VOLUMEN HOC SYLLOGES

MŒRENTES

DEDICANT AUCTORES

PRÆMONITUS

Vix triennium elapsum est post editum hujus operis volumen XVI, et novum, adjuvante Filio, est mihi in lucem proferendum. Sperabam, messem totam mycetum, per triennium ultimum collectam et evulgatam, in unum volumen me posse compellere, sed acquisitiones novæ, præcipue ex America australi et centrali, potissimum vero ex feracissima Brasilia, tam magnæ fuerunt ut materiam in volumina duo dividere coactus sim. Collectores et descriptores non pauci validam operam dederunt, sed duo imprimis honoris causa memorandi sunt: E. Ule, mycetum brasiliensium innumerorum strenuus collector, et P. Hennings, eorum indefessus illustrator. Nec parum contulerunt ad molem specierum augendam monographia Uredinearum Sydowiana et contributiones ad mycologiam Luxemburgensem a complorato J. Feltgenio († XI Majo 1904) editæ.

Proponente cl. professore G. Lindau, species plurimas Ascomycetum in Lichenibus parasiticas et hucusque tantum in libris lichenologicis, heu plerumque nimis breviter descriptas, suis locis addidi et sæpius ad subgenera propria, generibus affinioribus adjecta, accensere enisus sum *).

Septendecim species novæ in hoc volumine primitus descriptæ occurrunt, quarum elenchus mox sequitur **).

Patavii XV April. MCMV

P. A. SACCARDO

*) Cfr. infra p. 586, nota.

**) Cum hodie sæpe disseritur de usu litterarum majuscularum v. minuscularum ad initium nominum plantarum specificorum, liceat exponere normas, quæ mihi magis propriæ videntur.

I. Littera majuscula initialis adhibenda est ad specifica tam substantiva quam adjectiva ex viris derivata. Exempla: *Anixia Bresadolæ, Leptosphæria Rehmiana.*

II. Eadem in substantivis regionum, matricum atque generum vel vernaculorum, quæ tamquam specifica adhibentur. Exempla: *Polyporus Venezuelæ, Sphærella Chrysanthemi, Hypomyces Trichoderma, Amanita Coccola.*

III. Littera minuscula initialis adhibenda est ad cetera adjectiva specifica etiam geographica et substantiva communia, quæ similitudinis gratiâ sumuntur. Exempla: *Clavaria flava, Agaricus campester, Zignoëlla sardoa, Venturia montellica, Therrya gallica, Leptosphæria doliolum, Heterosphæria patella.*

SPECIES FUNGORUM IN HOC VOLUMINE PRIMITUS DESCRIPTÆ

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Uredo Nicotianæ Anast. Sacc. et Sp. p. 440.

Botanici qui quocumque modo «Syllogi» v. mycologicæ scientiæ profuerunt *)

(Continuatio. Cfr. vol. VIII p. IX, X p. V, XI p. VII, XIV p. V, XVI p. V)

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Johow Fr. (*Santiago*)
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Kirchner O. (*Hohenheim b. Stuttgart*)
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*) Plurimi ex citatis botanicis opera v. opuscula mycologica benevole miserunt, quibus æque ac prius laudatis editor devinctissimus gratias agit.

Kolkwitz R. (*Berlin*)
Koning C. J. (*Bussum*)
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Wagner G. H. (*Schmilka*)
Wakker J. H. (*Java*)
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Wilcox E. M. (*Auburn, Ala*)
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PRAESTO FUERUNT

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(Cfr. vol. I p. IX et vol. X p. XI *))

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HYMENOMYCETÆ *)

Syll. fung. V p. 3, IX p. 1, XI p. 1, XIV p. 63, XVI p. 1.

Fam. 1. **Agaricaceæ** Fr.

Sect. 1. **Leucosporæ** Fr.

AMANITA Pers. — Syll. V, p. 8, IX, p. 1, XI, p. 1, XIV, p. 63. — De hujus generis et *Amanitopsidis* speciebus cf. illustrationem cl. Boudier in Bull. Soc. myc. Fr. 1902, p. 251.

1. **Amanita flavoconia** Atkinson in Journ. of Mycol. 1902, p. 110. — Sparsa vel gregaria, 6–12 cm. alta; pileo convexo-expanso, plano vel subumbonato, crasso, luteo-aurantiaco, levi, viscido, verrucis tenuibus, luteis, floccosis obtecto; lamellis 4-8 mm. latis, utrinque rotundatis liberis, albis subconfertis, initio serrulatis; sporis obovatis. 6-9 × 4-6, albis; stipite 4-15 mm. crasso, farcto, recto vel flexuoso, basi incrassatulo, floccoso-squamoso, luteo-citrino, inferne volva marginato; annulo luteo citrino, membranaceo; volva initio totum fungum cingente dein hiascenti. 1

Hab. ad terram in Amer. bor., valde frequens. — *Am. Frostianæ* et *A. muscariæ* affinis.

2. **Amanita flavo-rubescens** Atkinson in Journ. of Mycol. 1902, p. 111. — Sparsa vel gregaria, raro subcæspitosa, 10-14 cm. alta; pileo convexo-expanso 6-10 cm. lato, levi, margine leniter striato, verrucis floccosis luteis vestito, centro brunneo, margine luteo-brunneo, crasso; lamellis oblongo-ellipticis, liberis, albis, non stipatis; basidiis clavatis 4-sporis, 40-50 × 9-11; sporis ovatis, granulosis, levibus, 8-10 × 6-8; stipite 6-12 mm. crasso, æquali, basi bul- 2

*) Conferenda perspicua Hymenomycetarum expositio cl. N. Patouillardi (*Essai taxonomique des Hymén.* 1900), quam *Sylloge* dolet amplecti non posse, ne dispositio jam adhibita in voluminibus nostris præcedentibus nimis subvertatur.

boso, floccoso, superne floccis lutescentibus, inferne floccis rubescentibus vestito; annulo crasso, membranaceo, luteo 3 cm. lato, apicali, lacero; volva lutescente, lacera.

Hab. ad terram, Ithaca, Amer. bor. (C. H. KAUFFMANN). — *A. rubescenti* affinis.

3. **Amanita multisquamosa** Peck Rep. of the State Bot. 1899, p. 840, tab. *B*, fig. 1-7. — Pileo convexo, dein planiusculo, 5-10 cm. lat. margine substriatulo, verrucis numerosis, angularibus, rectis persistentibus vestito, albido, interdum centro brunneo; carne albida; lamellis stipatis, liberis, albis; stipite æquali 4,5-10 cm. longo, 6-12 mm. cr., glabro, pleno vel cavo, basi bulboso, albo, annulo albo, persistenti, volva plus minusve marginata; sporis subglobosis vel late ellipticis 7,5-10 × 6-7, 5.

Hab. ad terram, in silvis, Albany, Amer. bor.

4. **Amanita Frostiana** Peck — Syll. V, p. 14. — var. **pallidipes** Peck Rep. of the State Bot. 1899, p. 855. — Pileo pallide luteolo; stipite annuloque albidis; verrucis molliusculis et flocculosis, numerosis, persistentibus, interdum paucis vel nullis.

Hab. ad terram in America boreali.

5. **Amanita grisea** Massee et Rodw. in Kew Bull. 1901, p. 156. — Pileo carnoso e convexo depresso, levi, glabro, griseo-brunneo 3-5 cm. lato; lamellis latis, ventricosis, subdistantibus, ex albido pallidis; sporis globosis, levibus, 9-10 μ. diam.; stipite subæquali, solido, albido, 4-5 cm. longo, 1 cm. crasso; volva libera, persistente; annulo membranaceo.

Hab. ad terram in Tasmania (RODWAY).

6. **Amanita phalloides** Fr. — Syll. V, p. 9. — var. **striatula** Peck in Rep. of the State Botanist 1901, pag. 961. — Pileo 2,5-5 cm. crasso, subplano, margine leviter striato, albo; stipite 7,5-12,5 cm. longo, 4-6 mm. crasso, basi parce incrassato, tenui, basi volva lacerata cincto; cetera ut in typo.

Hab. ad terram, Bolton Amer. bor.

AMANITOPSIS Roze — Syll. V p. 20, IX p. 2, XVI p. 64.

1. **Amanitopsis albocreata** Atkinson in Journ. of Mycol. 1902, p. 111. — Alta 10-13 cm.; pileo convexo-expanso, viscido albo, centro pallide luteo vel toto luteo, margine minute striato tuberculatoque verrucis vestito, 5-8 cm. lato; carne alba; lamellis antice rotundatis, postice angustatis 3-6 mm. latis, liberis vel subadnatis, margine floccosis; basidiis 30-45 × 7-10, 4-sporis; sporis globosis, albis,

levibus, primum granulosis, maturitate vacuolo lato donatis; stipite cylindraceo, albo, minute floccoso, cavo, basi bulboso, 6-12 mm. crasso; volva interdum levissima, ocreata.

Hab. in silvis, Ithaca N. Y., Cascadilla, Caynga Lake, Beebe Lake, Amer. bor. — Ab *A. nivali* Grev. volva albocreata differt.

2. **Amanitopsis volvata** (Peck) Sacc. Syll. V, p. 23. — var. **elongata** 8
Peck Rep. of the State Bot. 1899, p. 856. — Pileo glabro, viscidulo, albo, margine striatulo; stipite longo, recto vel curvato, superne farinoso, inferne floccoso-squamoso, bulbo profunde immerso.

Hab. inter acus Coniferarum, ad terram, Claryville, Amer. borealis.

3. **Amanitopsis vaginata** (Bull.) Roze — Syll. V, p. 21. — var. **crassivolvata** Peck Bull. Torr. bot. Cl. 1902, p. 562. — A typo differt statura majore, pileo 7-10 cm. lat., stipite 15-20 cm. longo, 2 cm. cr., præcipue vero volva multo crassiore poculiformi. 9

Hab. in uliginosis. M.t Desert Amer. bor. — Pileus cremeo-flavidus; sporæ globosæ 8-10 μ. diam.

LEPIOTA Fr. — Syll. V p. 27, IX p. 3, XI p. 2, XIV pag. 65, XVI p. 2.

1. **Lepiota rhacodioides** P. Henn. in Engl Bot. Jahrb. 1901, p. 56, 10
Syll. XVI, pag. 1110 (nomen). — Pileo carnoso, campanulato-explanato, obtuse umbonato ad medium squamis membranaceis, brunneolis, latis, sparsis tecto, ad marginem levi, glabro, albido usque ad 20 cm. diametro; stipite cavo, cylindraceo, levi, glabro, albo-brunnescente, 20-30 cm. longo, 2-3 cm. crasso, basi bulboso 3-4 cm. incrassato; annulo mobili crasso; lamellis liberis, confertis, lanceolatis, albidis; sporis ellipsoideis, grosse 1-guttulatis, 12-17 × 8-10, episporio flavo-carnescente.

Hab. ad folia putrida, Kamerun Afr.

2. **Lepiota caloceps** Atkinson in Journ. of Mycol. 1902, p. 115. — 11
Gregaria, 6-10 cm. alta; pileo 4-8 cm. lato, ovoideo vel convexo-expanso, margine sæpe incurvo, carnoso, solido, interdum fragili, centro 3-4 mm. crasso, margine tenui, centro late gibboso, brunneo-olivaceo, margine luteolo, rimoso; lamellis brunneo-albis, fragilibus, stipatis, liberis, 3-4 mm. latis, acie erosis; sporis anguste ellipsoideis vel fere oblongis, sæpe basi oblique truncatis, albis, granulosis, levibus, 6-8 × 2,5-3; stipite cylindrico, æquali, carnoso, cavo, superne albo, inferne roseo, interdum bulboso, basi mycelio obvoluto; cortina plus minusve sericeo-pilosa.

Hab. in silvis Cornell Heights, Ithaca N. Y. Amer. bor.

3. **Lepiota serenula** Karst. Fungi nov. Loennb. 1904, p. 7 (Finska Vetensk. Soc.). — Pileo carnosulo, molli, convexo, albo, squamis minutis, subconcentricis, obscurioribus, subfuscentibus obsesso, levi, circiter 9 cm. lato; stipite cylindrico æquali, glabro albo, bulbo magno, marginato, circiter 6 cm. longo; annulo infero membranaceo, fixo; lamellis confertis, in collarium liberum postice conjunctis, pallescentibus; sporis ellipsoideis.

Hab. prope Kuopio Sibiriæ Aug. 1903 (O. A. F. Lönnbohm).

4. **Lepiota nigro-marginata** Massee Eur. Fung. Fl. pag. 10, Trans. British Mycol. Soc. 1903-1904, pag. 61. — Pileo campanulato-expanso, subumbonato, squamoso; squamis umbrinis, infra subochraceis; stipite cavo, sursum attenuato, glabro, ex albo salmonicolore; annulo distanti, persistente, membranaceo, albo; lamellis antice latioribus, albidis, acie atro-umbrina; carne tenui, 5-6 cm. lat., 3-4 mm. cr.; sporis . . . .

Hab. in graminosis, Scarborough Britanniæ (W. G. Smith).

5. **Lepiota discipes** P. Henn. in Engl. Bot. Jahrb. 1901, p. 56, Syll. XVI, p. 1110 (nomen). — Pileo carnoso, ex ovoideo campanulato dein explanato, umbonato, flavo, squamis brunneolis adpressis vestito, umbone obscuriori, 5-7 cm. diam; stipite farcto, cylindraceo, pallido, fibroso, annulo membranaceo albido ornato, 10-18 cm. longo, 8-15 mm. crasso, basi clavato, discoideo usque ad 2,5 cm. cr.; lamellis liberis, confertis, pallidis; sporis globosis 3,5-4 hyalinis.

Hab. ad truncos emortuos, Kamerun Afr.

6. **Lepiota psalliotoides** P. Henn. in Abhandl. Bot. Ver. Brandenb. 1902, p. 177. — Pileo carnoso, initio ovoideo, dein hemisphærico, convexo, levi nec squamoso v. floccoso, pure albo, tactu flavo-maculato, margine acuto, levi, rarius tomentello, 3-7 cm diam.; stipite cavo-medullato, cylindraceo, deorsum clavato, albo, levi, glabro, annulo coriaceo-membranaceo persistente prædito, 3-6 cm. alt., 5-12 mm. cr.; lamellis liberis, confertis, 2-4 mm. latis, albis, dein roseis, demum fuscescentibus; sporis albo-hyalinis, ovoideis, 1-2-guttatis, 6-9 × 5-6, siccis rubidis.

Hab. in herbosis post pluvias, majo-sept. in horto botanico Dahlem Germaniæ. — Caro alba, sapida, inodora. Nisi sporæ albæ, videretur *Annulariæ* species.

7. **Lepiota atro-crocea** W. G. Smith, Trans. British Mycol. Soc. 1903-1904, pag. 62. — Pileo expanso, leviter depresso, læte aurantio-salmonicolori, flocculis purpureo-brunneis v. nigricantibus granu-

losis plus minus consperso: stipite cavo, sursum tenuato, aurantio-salmoneo, brunneo-salmoneo-squamuloso; annulo fugaci; lamellis late adnatis, salmoneo-albis; carne tenui, aurantio-salmoneo-brunnea, 4 × 3 × 0,3; sporis . . . .

Hab. ad terram Clevedon, Somerset Britanniæ. — Affinis *L. granulatæ* et *L. amianthinæ*.

8. **Lepiota Henningsiana** Sacc. et Dom. Sacc. *Lepiota pulveracea* P. Henn. in Engl. Bot. Jahrb. 1901, p. 56. — Syll. XVI, p. 1110 (nomen), nec Peck (1900). — Pileo carnoso, hemisphærico-campanulato, subumbonato, squamuloso, farinaceo albo, margine substriato, 4–7 cm. diam.; stipite fistuloso, tereti, squamuloso, farinaceo-albo, superne attenuato, basi incrassato; annulo membranaceo secedente, albo; lamellis liberis, confertis, integris; sporis ovoideo-ellipsoideis, hyalinis, episporio subincarnescente, basi oblique apiculatis, 7–10 × 5–6. 17

Hab. ad truncos emortuos, Kamerun Afr.

9. **Lepiota Hetieri** Boud. in Bull. Soc. Myc. de France 1902, n. 2, t. 6, f. 1. — 3–6 cm. alta; pileo subcarnoso 1,5–3,5 cm. lato, primo albo, dein tactu v. ætate leviter rufo-ferruginescente, convexo, dein applanato, late umbonato, minute pulverulento-granuloso, margine flocculis appendiculato; stipite albido, infra annulum sæpe evanescentem flocculoso-fibrilloso et colore ferruginescente saturatiore tincto; lamellis adnato-liberis, albis, rubro-maculatis, postice non annulatim junctis; carne alba plus minusve colore externo tinctâ, cum stipite non continua; sporis oblongis intus granuloso-nebulosis, albis 6–7 × 2,5–3. 18

Hab. ad terram, in Jura Galliæ (Fr. Hetier).

10. **Lepiota ochroleuca** Speg. Mycet. argent. ser. I, in An. Soc. Cient. Arg. 1899, p. 262. — Cæspitosa e terra erumpens; pileo primo subgloboso ochroleuco v. flavescente, minute denseque granuloso v. squarruloso-pulverulento, centro magis obscuro et sordido, levi, ambitu pallidiore et laxius pulverulento, margine stipiti adpresso atque velo connato, dein campanulato-explanato, 30–45 mm. diam., ochroleuco non v. obtuse latissimeque umbonato, carnosulo, rigidulo non striato; carne ex albo-flavescente, compactiuscula molli; lamellis, a stipite valde remotis, utrinque attenuato acutatis, medio 2 mm. latis, pallidioribus, confertis, subaridis; areola ad apicem stipitis latissima (2 mm. lat.) non marginata; stipite erecto vel flexuosulo, 50 mm. longo, pileo vix pallidiore, superne 4 mm. cr., glabro v. vix pruinosulo, ad tertium superum annulo tenuissime 19

membranaceo descendente mobili, facillime evanido, flavescente ornato, intus plus minusve late fistuloso, cavitate fibris albo-gossypinis farcta; sporis albis; odore farinaceo.

Hab. in umbrosis pinguibus hortorum, La Plata Argentinæ. — Species non marcescens sed corrugato-arescens. *L. hiatuloidi* Speg. valde affinis, sed magis carnosa et pileo non striato.

11. **Lepiota pulveracea** Peck Rep. of the State Bot. 1900, p. 144, nec Henn. — Pileo hemisphærico dein convexo vel fere plano, sicco pulverulento vel minute granuloso-squamuloso, margine æquali, albido vel pallide brunneo, 2,5 cm. lato; lamellis tenuibus, stipatis, adnatis, luteo-albidis; stipite æquali, cavo, albo, superne pruinoso inferne granuloso vel squamuloso, pileo concolori, 2,5-5 cm. longo, 3-4 mm. crasso; annulo obsoleto; sporis minutis, subellipsoideis vel subglobosis 4 × 3. 20

Hab. in silvis ad arbores dejectas, Floodwood, Amer. bor. — *L. granulosæ* affinis, sed satis diversa.

12. **Lepiota brunnescens** Peck Bull. Torr. Bot. Cl. 1904, p. 177. — Pileo tenui, convexo, v. subplano, obtuso v. umbonato, albido, cuticula mox fatiscente et granulos v. squamulas brunneolas (excepto centro pilei) formante subinde ad marginem radiatim rimulosa; carne alba, sapore dulci; lamellis confertis, ventricosis, liberis, albis; stipite æquali v. leviter basim versus incrassato, cavo, fibroso, albo, ad medium annulo exiguo sed persistenti prædito; sporis ellipsoideis, 6-8 × 4-5. 21

Hab. in silvis apertis locisque graminosis, prope St. Louis Mo Amer. bor. (N. M. Glatfelter). — Pileus 2-3 cm. lat.; stipes 3-5 cm. long., 2-4 mm. cr. *L. cristatæ* subaffinis.

13. **Lepiota Johnsonii** Massee Kew Bull. 1901, p. 161. — Pileo subcarnoso, e convexo expanso, flocculoso-squamuloso, lateritio, squamulis obscurioribus, 3 cm. lato; lamellis liberis, confertis, subventricosis, albis; stipite fistuloso, æquali, subflexuoso, 5 cm. longo, 2 mm. crasso, pileo concolori; annulo infero, fugaci, albido; sporis ellipsoideis, hyalinis, levibus, 8 × 5. 22

Hab. in silvulis, Alburi, Gold Coast Africæ occident. — *L. martiali* Cooke et Massee affinis.

14. **Lepiota adnatifolia** Peck Rep. of the State botanist 1901, p. 947. — Pileo tenui, centro crassiusculo, subconvexo vel fere plano, minute granuloso vel squamuloso, isabellino alutaceo vel rufo ferrugineo, margine sæpe ob residua cortinæ, appendiculato, 2,5-6 cm. lato; carne alba; lamellis tenuibus, stipatis, adnatis, albis; stipite 23

basi subincrassato, firmo, farcto, dein maturitate cavo, glabro vel superne subsquamuloso, pallido vel subrufescenti 2,5-3,5 cm. longo, 4-8 mm. crasso; annulo tenui evanido; sporis 5-6 × 3,5-5.

Hab. ad terram sub Coniferis, Bolton et Hague, Amer. bor. — Ad *Armillariam* vergit.

15. **Lepiota Glatfelteri** Peck Bull. Torr. Bot. Cl. 1904, p. 177. — 24
Pileo tenui convexo v. subplano, obtuso v. leviter umbonato, minute innato-fibrilloso, griseo, griseo-brunneo, subinde purpureo-tincto, centro sæpius obscuriore, margine subinde radiatim rimoso; carne alba; lamellis confertis, lanceolatis, liberis albis v. albidis; stipite æquali v. subæquali, firmo, farcto v. cavo, albido; annulo tenui, persistenti; sporis late ellipsoideis, 6-8 × 4-5.

Hab. ad terram in silvis pr. St. Louis Mo Amer. bor. (N. M. Glatfelter). — Pileus 2,5-5 cm. lat.; stipes 4-5 cm. long., 2-4 mm. cr.

16. **Lepiota mammosa** P. Henn. F. Indiæ or. II, in Hedw. 1901, 25
p. 335. — Pileo carnosulo, campanulato expanso, centro mammoso-apiculato, brunneolo, radiatim striato dein rimosoque, pallido-brunneo, zebrino, 2-5 cm. diam.; stipite tereti, fistuloso, gracili, levi, glabro, albido, subradicato, 3-8 cm. longo, 2-3 cm. cr., annulo membranaceo fugaci; lamellis liberis, confertis, ventricosis ca. 2 mm. latis utrinque obtusis, pallide cremeis; sporis ellipsoideis 1-guttulatis, 5-6 × 4-5, hyalinis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

17. **Lepiota eriophora** Peck Bull. Torr. Bot. Cl. 1903, p. 95. — Pileo 26
tenui sicco, late convexo v. subplano, dense squamoso, squamis compactiusculis, brunneis, subinde lanuginosis; carne alba; lamellis tenuibus, angustis, confertis, liberis, albidis, senio v. siccitate fuscescentibus; stipite æquali, cavo, tomento brunneo vestito; sporis minutis 4 × 2-2,5, sæpe in massulas conglobatis et tunc subangulosis.

Hab. ad terram, West Virginia Amer. bor. (C. G. Lloyd). — Pileus 2,5 cm. lat., stipes 2-3 cm. long., 2-3 mm. cr. Affinis *L. felinæ* et *L. fuscosquameæ*.

18. **Lepiota ecitodora** Atkinson in Journ. of Mycol. 1902, p. 115. — 27
— Pileo convexo, cæruleo-cæsio, minute verrucoso 2 cm. lato; carne alba tenui; lamellis 3 mm. latis antice angustatis, postice rotundatis, albis luteoque tinctis; basidiis clavatis tetrasporis 25-28 × 6-7; cystidiis nullis; sporis cylindraceis, levibus 9-11 × 2-2,5; subhymenio e cellulis 4-10 μ. diam. composito; stipite basi acumi-

nato intense brunneo, superne albo-pruinoso, 4 cm. alto; annulo pulverulento, evanescenti; carne alba minuscula, odore fœtido, formicino (*eciton ants*).

Hab. ad terram in silvis Cascadilla, Ithaca, N. Y., Amer. bor. (C. O. Smith).

19. **Lepiota purpureoconia** Atkinson in Journ. of Mycol. 1902, p. 116. 23
— Sparsa 4–5 cm. alta; pileo convexo 1–2 cm. lato, tenui, albido, in juventute squamulis (veli) lilacino-purpureis vestito; lamellis latis, albis firmis, rotundatis, stipatis sed liberis, subdistantibus; sporis ellipsoideis, levibus, albis, 8–10 × 3–4; stipite æquali lilacino purpureo, solido, carnoso, supra annulum squamulis albis vestito 3–4 mm. diam.; annulo evanescenti, ex residuo cortinæ universalis; carne alba, luteo-tincta.

Hab. in silvis, ad terram, Ithaca Flats N. Y. Amer. bor. (C. O. Smith).

20. **Lepiota rufidula** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 29
Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 129.
— Pileo carnosulo, e campanulato expanso-gibboso vel umbonato, castaneo, cute mox in squamas concolores in fundo rufidulo rupta, 1–2 cm. lato; lamellis subconfertis adnexo-secedentibus, albis, demum pallide rufis; stipite fistuloso, a basi subattenuato, supra annulum glabro vel subpruinato, pallido, striato, sub annulo rufo-castaneo, squamis floccosis, demum evanidis ornato, 2,5–3,5 cm. longo, 2 mm. circ. crasso; annulo infero floccoso, fugaci; basidiis clavatis 20–25 × 5–6; sporis oblongo-subamygdaliformibus, lateraliter apiculatis 12–15 × 5, hyalinis.

Hab. ad terram prope Setubal Lusitaniæ. — *Lepiotæ castaneæ* Quél. proxima, a qua sporis majoribus, colore magis rufidulo et lamellis primitus adnexis distinguitur.

SCHULZERIA Bres. — Syll. IX p. 72, XI p. 7, XIV p. 69.

1. **Schulzeria Grangei** Eyre Brit. Mycol. Soc. 1903, pag. 37, 1904, 30
tab. V, f. 1. — Pileo applanato-umbonato, atro-viridi, in squamas fibrosas subtus albas diffracto, 2,5–4 cm. lato; stipite cylindraceo, pileo concolore pariterque squamuloso; lamellis medio latioribus, subliberis, ex albo alutaceis, minute denticulatis sporis clavato-oblongis, basi apiculatis, minute pluri-guttulatis, hyalinis, 12–13 × 4–5.

Hab. ad terram inter folia faginea, autumno, Swarraton Rectory Wood, Britannia. — *Schulzeriæ squamigeræ* affinis.

2. **Schulzeria lycoperdoides** Cooke et Massee, Trans. British Mycol. Soc. 1902, p. 13. — Pileo convexo, dein expanso, molli, castaneo, verrucis pyramidatis saturatioribus sæpe basi diffractis consperso (quasi *Lycoperdon*), margine appendiculato; stipite æquali, solido, minute fibrilloso, albido; lamellis satis confertis, liberis, albis; sporis ovoideis, 5 × 4. 31

Hab. ad terram inter Cedros, Kew Britanniæ. — Pileus 3-4 cm. lat.; stipes 5 cm. long.

TRICHOLOMA F. — Syll. V p. 87, IX p. 13, XI p. 8, XIV p. 71, XVI p. 20.

1. **Tricholoma niveipes** Peck in the Torr. Bot. Club. 1902, p. 69. — Pileo initio hemisphærico vel convexo, dein subconvexo vel fere plano, sicco fibrilloso, subvirgato, intense brunneo vel griseo-brunneo, 5-12 cm. lato; carne alba; lamellis confertiusculis, adnatis, sinuatis, niveo-albis; stipite æquali, solido, pleno, albo niveo, 5-7 cm. longo, 6-12 mm. crasso; sporis oblongis 7-8 × 3. 32

Hab. ad terram inter acus Coniferarum, South Yarmouth, Massac., Amer. bor. (S. Davis).

2. **Tricholoma argyropotamicum** Speg. Mycet. Arg. ser. I, in An. Soc. Cient. Arg. 1899, p. 263. — Pileo hemisphærico convexo 45-50 mm. diam., carnoso, cute sicca flocculosa cinerescente centro reticulato-diffracta, ceterum subsquamulosa, ambitu nuda alba, margine (1 mm.) lamellas excedente tecto; carne alba, compacta, sapore terreo dulci-acri; lamellis 6 mm. alt., relaxatis, rigidulo-fragilibus, acie integerrimis, antice acutato-rotundatis, postice sinuato-adnatis; stipite 50 mm. longo, tereti, apice leniter incrassato 8 mm. cr., ima basi attenuato-obtusato (5 mm. cr.), farcto, carnoso-fibroso, intus albo, medio subannulato, extus superne levi, subnitente, infra minute squamuloso v. furfurello ac fuscescente, sub parte inflata fibrilloso-striato ac flavescente; sporis 33

Hab. ad terram denudatam pinguem, La Plata Argentinæ.

3. **Tricholoma terreum** Schaeff. — Syll. V, p. 104. — var. **ætnense** Bacc. in Scalia Fungi Sicil. Orient. serie I, 1900, p. 19. — Cæspitosum; pileo fuligineo-sericeo, margine involuto, primitus subrotundo dein conico-umbonato, postea magis explanato; stipite centrali, albido, fibrilloso; lamellis nec decurrentibus nec constanter crenulatis; odore tenui farinaceo. 34

Hab. ad terram, Pedara, prope Cataniam Siciliæ.

4. **Tricholoma radicatum** Peck in Rep. of the State Botanist, 1902, 35

p. 22, tab. 82, fig. 15-19. — Pileo carnoso, firmo, convexo, sicco, minute sericeo-fibrilloso vel obscure fibrilloso-squamuloso, sæpe lucenti, pallide griseo-brunneo, centro rufo-brunneo tincto, margine tenui, 5-7,5 cm. lato; carne alba, sapore ingrato; lamellis tenuibus, stipatis, emarginatis, adnatis, subdecurrentibus, albis; stipite firmo, subæquali, cavo, subfibrilloso, distincte radicato, albo, 3,5-10 cm. alto, 6-10 mm. crasso; sporis subellipsoideis 5-6 × 4-5.

Hab. in silvis Coniferarum, North Elba, Amer. bor.

5. **Tricholoma bisontinum** Rolland in Bull. Soc. myc. de France 1901, tab. I. — Pileo pulvinato, carnoso, cuticula crassa, rigida, brunnea, subvirente, fibrillis minutissimis, adpressis virgata, margine inflexo et fragili; stipite solido, deorsum attenuato, intus farcto, extus rigido, fibrilloso striato, sursum granulis minimis, obscuris punctato, ad summum lutescente, ad inferam partem albido et serius leviter rubescente; lamellis subdistantibus, sinuatis, integris 500 μ. et ultra crassis, fragilibus, cinereis, transverse venis planis, plus minus ramosis, distinctis conjunctis; sporis hyalinis, ovatis, crasse virgulæformibus, guttula magna donatis, circiter 10-12 × 6. 36

Hab. in regionibus juranis, Besançon Galliæ. — Caro albida, in pileo sericea, firma, in stipite floccosa, prope cuticulam lutescens, farinam redolens. — A *Tr. murinaceo* sporis multo minoribus, granulosis, magis rotundatis differt.

6. **Tricholoma rimosum** Peck in Rep. of the State Botanist, 1901, p. 947. — Pileo carnoso, convexo, dein fere plano, sæpe margine rimoso, glabro, hygrophano, brunneo-lucenti, in sicco pallido 2,5-4 cm. diam.; carne brunnea, in sicco albida, sapore farinaceo; lamellis tenuibus, constrictis, stipatis, rotundatis, adnatis, acie irregularibus, albidis vel subcinereis; stipite subæquali, sericeo-fibrilloso, cavo, albido 2,5-5 cm. longo, 3-5 mm. crasso; speris ellipsoideis 7,5-9 × 4-5. 37

Hab. in silvis, Bolton Amer. bor.

7. **Tricholoma panæolum** Fr. — Syll. V, p. 132. — var. **deserticola** Speg. in Ann. Soc. Cient. Arg. 1899, p. 274. 38

Hab. in pratis editioribus prope Choiquelánén, Chubut Patagoniæ (N. Illin). — Varietas cum typo habitu, statura, contextu plane conveniens, tamen sporis conspicue majoribus 9-11 × 4-6, sat recedens.

8. **Tricholoma viscosum** Peck Bull. Torr. Bot. Cl. 1904, p. 178. — Pileo carnoso, convexo, margine irregulariter undulato, sæpe senio 39

sursum involuto, glutinoso, levi, sicco lucenti, flavido-fulvo, centro obscuriore v. rubenti-brunneo; carnè alba, odore levi sed ingrato; lamellis angustis, confertis, subliberis, albis; stipite firmo, æquali, solido, flexuoso, glutinoso, sursum albo, deorsum brunneolo; sporis minutis, subglobosis, 3-4 μ. diam.

Hab. ad terram pr. St. Louis Mo. Amer. bor. (N. M. Glatfelter). — Pileus 2-5 cm. lat ; stipes 2,5-4 cm. long., 4-5 cm. cr.

9. **Tricholoma humile** (Fr.) Quél. — Syll. Fung. V, p. 136, — var. **bulbosum** Peck in Ricker Prel. List Maine Fungi, Orono, 1902, p. 61. — A typo differt stipite basi bulboso. 40

Hab. ad terram, Orono Amer. bor.

10. **Tricholoma Spegazzinii** Sacc. et D. Sacc., *Trichotoma humile* Speg. Mycetes argent. ser. II, 1902, p. 49, nec Fr. — Pileo convexo-plano 20-40 mm. diam. pallide e cinereo avellaneo, centro non vel obsoletissime subumbonato obscuriore, levi, glabro intus carnosulo albo; carne 2-3 mm. cr. parum succosa; lamellis polymaeriis antice attenuato-acutatis, postice sinuato-adnatis 4-5 mm. alt, membranaceis, acie integerrimis, albidis, confertis; stipite brevi, centrali, cylindrico, erecto, superne glabro, inferne tenuiter albo-pulverulento 10-15 mm. long., 3-5 mm. cr.; sporis elliptico-ovatis 7-8 × 3,5-4, obsolete rugulosis, inferne inæquilateraliter acutatis; cystidiis parce clavulatis, obtusis 20-24 × 12-14, hyalinis, levibus. 41

Hab. in pratis pinguibus herbosis circa S. Catalina pr. Buenos Aires in Argentina

CLITOCYBE Fr. — Syll. V pag. 141, IX p. 18, XI pag. 13, XIV p. 74, XVI, p. 23.

1. **Clitocybe tortilis** Bolt. — Syll. V, p. 198. — var. **gracilis** Peck in Rep. of the State Botanist 1902, p. 36. — Pileo exili 6-12 cm. lato, convexo vel subumbilicato, dein centro depresso vel infundibuliformi, irregulari, margine striato, carne rubra, in sicco pallidiori; lamellis latis, distantibus, adnatis vel decurrentibus, pruinosis; stipite filiformi, firmo, glabro, spongioso, cavo, 12-20 mm. longo, 2 mm. crasso. 42

Hab. gregaria ad terram in horto botanico New York Americæ borealis.

2. **Clitocybe piceina** Peck Bull. Torr. Bot. Cl. 1904, p. 178. — Pileo carnoso, convexo v. subpiano, sicco, albo v. albido, juniore griseotincto; carne compacta, alba, sapore acri, odore forti ingrato; lamellis confertis, decurrentibus v. interdum, per stipitem longe de- 43

currentibus, albo-cremeis; stipite æquali v. subæquali, firmo, obtuso, solido, subfibroso, sæpe apice lineis elevatis striato; sporis, 5-6 μ. diam.

Hab. sub Piceis pr. Chicago Amer. bor. (W. S. Moffat et L. H. Watson). — Pileus 6-10 cm. lat.; stipes 5 7 cm. long., 12-18 mm. cr. *C. cerussatæ* et *C. albissimæ* affinis.

3. **Clitocybe marginata** Peck Bull. Torr. Bot. Club. 1902, XXIX, 44
p. 558. — Pileo carnoso, crassiusculo, subcampanulato, dein convexo, obtuso, v. late umbonato, glabro v. subglabro, sicco, badio-fulvescente, margine primitus involuto; carne flava; lamellis angustis, confertis, decurrentibus, acie rubentibus; stipite subæquali, obtuso, cavo, glabro, nitido, flavido, lineis rubescentibus longitudinalibus notato; sporis subglobosis, 5 × 4-5.

Hab. ad truncos emortuos, cæspitose, Mt. Desert Maine Amer. bor. — Pileus 5-8 cm. lat.; stipes 5-8 cm. long., 6-12 mm. cr. In subsect. II *Disciformium* locanda species distinctissima.

4. **Clitocybe bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 45
Syll. XVI, p. 1111 (nomen). — Pileo carnosulo hemisphærico-convexo, centro depresso-umbilicato v. subinfundibuliformi, albido, pruinoso, 2-5 cm. diam., glabro; stipite farcto, cylindraceo v. compresso velutino-pruinoso, 4-6 cm. longo, 4 mm. 1 cm. crasso; lamellis decurrentibus, subconfertis, angustis 0,5-0,9 mm. latis, albidis, flexuosis; sporis ovoideis v. subglobosis 3,5-4 μ. diam. hyalinis.

Hab. ad folia putrida, Kamerun Afr.

5. **Clitocybe regularis** Peck in Rep. of the State Botanist, 1901, p. 948, 46
tab. *K*, fig. 1-7. — Pileo exili 2,5-6 cm. lato, flexuoso, subconvexo dein subplano, sæpe centro subdepresso, orbiculari, regulari albido, in sicco albo; carne alba, sapore grato; lamellis tenuibus, constrictis, stipatis, decurrentibus, albidis; stipite firmo 2,5 cm. longo, 3-5 mm. crasso, æquali, glabro, solido, raro lacunosulo, albido, basi spongioso; sporis minutis 5 × 2,5-3.

Hab. ad terram in foliis dejectis, in silvis, Bolton, Americæ borealis.

6. **Clitocybe subconcava** Peck in Rep. of the State Botanist, 1901, 47
p. 948, tab. *K*, fig. 8-13. — Pileo exili 2,5-5 cm. lato, profunde umbilicato, glabro, hygrophano, brunneo vel rufo-brunneo, margine incurvo striatulo, in sicco albido; lamellis arcuatis decurrentibus, stipatis, pallidis vel subcinereis; stipite æquali, firmo, solido, sæpe lacunoso, subfibrilloso, pileo concolori 2,5-5 cm. longo, 3-4 mm. crasso; sporis minutis 5-5,8 × 2,5-3.

Hab. in silvis Coniferarum, Bolton, Amer. bor. — *C. concavæ, C. cyathiformi, C. expallenti* affinis sed satis distincta.

7. **Clitocybe popinalis** (Fr.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 66, *Agaricus popinalis* Fr. Syst. Myc. I, p. 194, *Agaricus Amarella* Pers. Myc. Europ. 3. p. 99, *Clitocybe senilis* Fr. Ic. Sel. tab. 56, f. 1, Hymen. Europ. p. 98, Syll. V, p. 174.

Hab ad folia decidua Quercus, augusto-octobri, Polonia. — Sporæ in cumulo luride carneæ, sed sub microscopio prorsus hyalinæ, subglobosæ, episporio punctato-scabro, $4\,^1/_2$-5 × 4-$4\,^1/_2$ Species hæc mihi frequens obvia in silvis coniferis, frondosis et pratis vix dubie *Clitocybes* sp, nec *Clitopilis* affinis. *Clitocybe senilis* Fr. ejus statum vetustum sistit (Bres. l. c.).

8. **Clitocybe dealbata** Sow. — Syll. V, pag. 157. — var. **deformata** 48
Peck in Rep. of the State Botanist, 1902, p. 35. — Pileo exili, valde irregulari convexo vel centro depresso, margine undulato-lobato; hymenio interdum in superficie pilei fere dædaloideo et circumcirca lamellato, albo niveo; lamellis adnatis, subdecurrentibus transverse ramosis v. anastomosantibus, albidis; carne albida, sapore farinaceo; stipite irregulari, interdum compresso, plus minusve basi confluenti, cavo vel farcto, albo, basi tomentoso-lanuginoso; sporis subglobosis 3-3,5 μ. diam.

Hab. in calidariis, Newark, Amer. bor.

9. **Clitocybe? castanicola** Bacc. in Scalia, Fungi Sic. orient. ser. I, 49
1900, p. 19. — Pileo carnoso, conico-depresso, umbonato, margine involuto, primum fere circinato; trama stipitis cum trama pilei continua; carne primum albido-straminea dein cærulescente-testacea; stipite farcto; lamellis undulatis, crenatis, sulphureis, decurrentibus, inæqualibus, dein cum carne concoloribus.

Hab. ad terram, Pedara prope Catanam Siciliæ.

10. **Clitocybe centralis** Peck Rep. of the State Bot. 1899, p. 841, 50
tab. *C*, fig. 16-20. — Pileo tenui 12-30 mm. lato, subconvexo v. subplano, parce umbilicato, glabro, hygrophano, pallide griseo-brunneo et margine substriatulo, centro brunneo, in sicco griseo-albido; carne albida; sapore odoreque farinaceo; lamellis constrictis, stipiti adnatis vel subdecurrentibus, albidis; stipite brevi 2, 5-3,5 cm. longo, 2-4 mm. crasso, æquali, farcto vel cavo, fibroso, pileo concolori; sporis minutis, ellipticis, 6 × 3.

Hab. ad terram inter folia dejecta Essex et Warren Americæ borealis.

11. **Clitocybe pumila** (Fayod) Sacc. et D. Sacc. *Laccaria pumila* Fayod 51

in Ann. R. Acc. d'Agric. Torino 1893, p. 91. — Pileo pelliculoso, primo campanulato 5 mm lato, dein applanato, centro depresso, undulato, radiatim striato, 1-1,5 cm. lato, udo lateritio-carneo (mahagonicolore) centro saturatiore, subsicco ochraceo; lamellis adnexis, subemarginatis, carneis; stipite 1,5 mm. cr., sursum incrassato, in pileum expanso, 2 cm. longo, flexuoso, fistuloso, concolore, basi gossypino, albo; basidiis 2-sterigmaticis haud emergentibus; cystidiis curtis clavato-globosis; sporis sphæricis echinulatis, 12-18 μ. diam.

Hab. catervatim ad terram arenosam, locis humidis, pr. Terra-Pellice in alpibus Pedemontii. — Elegantissima species.

12. **Clitocybe cyanea** Rick in Ann. Mycol. 1904, p. 244. — Cæspitosa; pileo subinfundibuliformi, vagis minimis striato, pulcre cyaneo, 3 cm. lato; stipite cylindrico, 5 cm. alto, 4 mm. cr., torto, striato, cyaneo, apicem versus albido consperso; lamellis confertis, inæqualibus, angustis, albis, subdecurrentibus; sporis polygonalibus 2 μ. diam.; mycelio albo cæspites circumtegente. 52

Hab. ligna terram spectantia, Sao Leopoldo Brasiliæ. — Videtur affinis *C. cyanophæa*.

13. **Clitocybe paulensis** P. Henn. F. S. Paul. III in Hedw. 1904, p. 204. — Pileo carnosulo, infundibuliformi, aurantiaco, levi, glabro v. margine striatulo, 1-2 cm diam.; stipite subfarcto, tereti, subflexuoso, cinereo-incarnato, substriato, pruinoso, 2,5-3 cm. longo, 1,5 mm. cr.; lamellis longe decurrentibus, confertissimis, angustis, flavidis; sporis globosis 1-guttulatis, hyalinis, 4-5 μ. diam. 53

Hab. ad terram, Penha da Franca, S. Paulo Brasiliæ. — *Cl. inversæ* proxima, sed vix carnosa.

14. **Clitocybe parasitica** Wilcox, Oklahoma Agr. Exp. Stat. Bull. 1901, n. 49. — Pileo carnoso fortiter convexo, dein umbonato, demum plano-depresso, melleo demum flavido rubello, centro squamis minutis verrucisque concoloribus consperso; margine valde involuto dein sensim horizontaliter sursumque leniter verso, maturitate sæpe radiatim fisso; stipite solido, sinuoso, basim versus leniter tenuato, imaque basi non incrassato, glabro sed vulgo ob cutem diffractam squarruloso; lamellis æqualiter decurrentibus, remotis, numero 80-125, e roseo-albis demum flavido-brunneo tinctis v. uniformiter carneis; sporis ellipsoideis v. subsphæricis, 6,4-7,4 ≈ 5,6-6, albis. 54

Hab. cæspitose ad truncorum vivorum, denique mortuorum basim Persicæ, Cerasi, Mali, Quercus in Oklahoma, Amer. bor. — Pileus 7-8 cm. lat.; stipes 12-15 cm. alt, 0,5-1 cm. cr.

Fungus generat sub terra *Rhizomorpham* albo-roseam demum nigrescentem, noctu phosphorescentem arboribus valde noxiam, æque ac *Armillaria mellea*. Affinis videtur *Cl. monadelphæ*.

COLLYBIA Fr. — Syll. V p. 200, IX p. 27, XI p. 17, XIV p. 77, XVI p. 25.

1. **Collybia subclavata** W. G. Smith, Trans. Brit. Mycol. Soc. 1902, p. 14. — Pileo submembranaceo, firmo, campanulato, obtuso, sicco, floccoso, opaco, brunneo, 7 cm. alt., 10 cm. lat.; stipite elongato, cavo, sat gracili, sursum leviter tenuato, basi præmorso, flocculoso, pallide brunneo, 16 cm. long., 6-9 mm. cr.; lamellis adnexis, distantibus, latissimis, 15 mm., albis; sporis 55

   Hab. inter truncos in silvis, Epping Britanniæ.

2. **Collybia Henriettæ** (W. G. Sm.) Sacc. *Agaricus Henriettæ* W. G. Smith in Journ. of Bot. 1903, p. 139. — Pileo sicco, plano, tenuiter lanuginoso, flavido-umbrino, 10 cm. lat.; stipite sursum tenuato, subpruinoso, levi, leviter radiculoso, intus et extus pallide flavido-brunneo, 18 cm. longo, 5-6 mm. cr.; lamellis distantibus, late adnatis sinuatisque, 15 mm. cr.; sporis 12-17 μ. long.; carne tenuissima. 56

   Hab. ad truncos in Britannia, Sept. — Intermedia species inter *Collybiam radicatam* et *C. longipedem*.

3. **Collybia albidula** Pat. in Duss Enum. Champ. Guadel. 1903, p. 49. — Pileo carnoso albo v. rufescente, convexo, orbiculari, plus minus sinuato, glabro, levi, 4-8 cm. lato; lamellis mollibus, albis, latis, adnatis, inæqualibus; sporis incoloribus, ovoideis, levibus, 8-10 × 5-6; stipite centrali, tenaci, basi inflato, 5 cm. long., regulari, cylindrico, glabro. 57

   Hab. in ligno emortuo in Guadalupa (Duss).

4. **Collybia rugosiceps** Atkinson in Journ. of Mycol. 1902, p. 112. — Pileo sæpe campanulato, firmo, rugoso, luteo-fuligineo, 5 cm. lato; carne alba; lamellis 6 mm. latis, distantibus, adnatis, albis; basidiis 4-sporis oblongo-clavatis, 50-65 × 6-8; cystidiis clavato-subellipticis, longis, 100-180 × 25-35, hyalinis; sporis obovatis vel subellipsoideis, levibus albis, 8-11 × 7-9. stipite albo, 6-7 cm. alto, 1,5 cm. crasso, inferne brunneo, sulcato, ventricoso, spongioso dein cavo. 58

   Hab. ad terram in silvis South Hill, Ithaca, N. Y., Amer. bor. (C. O. Smith). — Color et sapor subnulli.

5. **Collybia calabarensis** Syd. Ann. Mycol. 1903, p. 177, *Coll. oli-* 59

vacea Massee Kew Bull. 1901, p. 161, nec Lamb. — Pileo tenui, e convexo applanato, levi, glabro, sicco obscure olivaceo, marginem versus pallidiore, 4 cm. lato; lamellis confertis, angustis, postice annexis, albidis, acie integris; stipite cylindrico cartilagineo, glabro, albo-virenti, 8 cm. longo, 6-7 mm. crasso; sporis ellipsoideis, levibus, 8 × 5.

Hab. ad terram, Old Calabar Africæ occident.

6. **Collybia lachnocephala** Pat. Bull. Soc. Mycol. 1902, p. 299 bis. — 60
Pileo convexo plano, ochraceo, orbiculari, 2-3 cm. lato, verrucis erectis, conicis, apice conniventibus, concoloribus obsito; lamellis pallidioribus, inæqualibus, venoso-connexis; stipite cylindrico deorsum incrassato, tenaci, 5 cm. longo, 3 mm. crasso, dense tomentoso-velutino, ochraceo.

Hab. ad terram?, Oubangui Africæ (Dybowsky). — *C. rheicolori* Bk. et *C. cayennensi* Mtg. affinis.

7. **Collybia umbonata** Peck Bull. Torr. Bot. Cl. 1904, p 178. — Pi- 61
leo tenui, conico demum convexo v. subplano, margine deflexo, elate umbonato, glabro, badio-rubro v. castaneo, subinde centro obscuriore; lamellis numerosis subdistantibus, postice tenuatis, subliberis, albidis; stipite longiusculo, glabro, æquali v. sursum leniter tenuato, cavo, radicato, pileo concolori v. paullo dilutiori; sporis minutis, ellipsoideis, 6 8 × 4-5.

Hab. ad truncos vetustos *redwood* (Sequoja? Ceanothus?), California (W. R Dudley et E. B. Copeland). — Affinis *C. radicatæ*. Pars radicata stipitis subinde partem exertam æquat. — Pileus 2-3 cm. lat.; stipes 5-15 cm. long., 4-6 mm. cr.

8. **Collybia sulphurea** P. Henn, in Engl. Bot. Jahrb. 1901, p. 56. — 62
Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo-carnosulo, campanulato-convexo, levi, glabro, sulphureo vel jove pluvio subaurantiaco, 2-3,5 cm. diam.; stipite farcto, tenaci, tereti, æquali, concolori, glabro 2,5-3,5 cm. longo, 1,5-2 mm. crasso, basi albido-byssaceo; lamellis adnatis, confertis, angustis, sulphureis; sporis subgloboso-ellipsoideis, 3-3,5 × 3, hyalinis, levibus.

Hab. in ligno putri, Kamerun Afr.

9. **Collybia badia** Quél., Assoc. franç. p. l'Avanc. Scienc. 1901, II 63
partie p. 494, tab. III, f. 2. — Pileo convexo, orbiculato, 2-3 cm. lat. minute tomentoso, pallide badio; carne tenui, alba, dein margine rosea; lamellis sinuatis, confertis, ventricosis, albis; stipite fistuloso, gracili, flocculoso; sporis ovoideis basi apiculatis (lacrimæformibus), 8 µ. long. hyalinis.

Hab. in silvis Pini silvestris prope Parisios et in Normandia, autumno (Boudier). — Affinis *C. pullæ*.

10. **Collybia cyanocephala** Pat. Champ. de la Guadel. ser. III, in 64
Bull. Soc. Myc de France t. XVIII, 1902, p. 171. — Pileo carnoso convexo, orbiculari, levi, intense azureo, 2-2,5 cm. lat.; lamellis remotiusculis, latis, adnatis, intermixtis brevioribus, pileo concoloribus sed paullo saturatioribus: stipite centrali, farcto, cylindraceo, albido sursum cyaneo, tenaci, 5-7 cm. longo, levi, glabro; sporis hyalinis, subglobosis, levibus, 6 × 5.

Hab. ad terram in Guadalupa (Duss). — Colore pulcre cyaneo mox dignoscitur.

11. **Collybia confluens** Pers. - Syll. V, p. 222. — var. **campanulata** 65
Peck in Rep. of the State Botanist, 1901, p. 963. — Pileo campanulato 2,5-7,5 cm. lato; lamellis stipiteque albidis vel subcinereis.

Hab. in silvis, Bolton, Amer. bor. — Pilei in circulum dispositi, sæpe dense stipati.

12. **Collybia irrorata** Pat. in Duss Enum. Champ. Guadel. 1903, 66
p. 49. — Pileo carnoso, convexo-rotundato, brunneolo, margine striolato, præcipue in regione media pilis incoloribus, mollibus, adpressis pruinam albam formantibus vestito; lamellis albidis, brevioribus intermixtis; cystidiis copiosis eminentibus, incoloribus, cylindraceis, apice tenuatis obtusisve, crasse tunicatis et sæpe incrustatis, 50-70 × 15-20; sporis albis, ovoideis, levibus, 6-7 × 4; stipite cylindrico, æquali, gracili, cavo, tenaci, fulvello, parce et molliter albo-villoso.

Hab ad ligna putrida Guareæ simplicifoliæ in silvis, Guadalupa (Duss). — Fungus 2-5 cm. alt.; pileus 10-15 mm lat.; stipes 1 mm. cr.

13. **Collybia ligniaria** Peck Rep. of the State Bot. 1900, p. 145. — 67
Pileo tenui, convexo vel subplano, obtuso vel umbonato, glabro, margine striatulo, pallido vel isabellino, centro brunneolo, 16-24 mm. diam.; lamellis tenuibus, angustis, ventricosis, postice late excavatis, subdistantibus, albis; stipite æquali 2,5-5 cm. longo, 2 mm. crasso, rigido, glabro, cavo, albido vel pallido; sporis late ellipsoideis vel subglobosis, 7,5-8,5 × 6-7,5.

Hab. in truncis dejectis, North Elba, Amer. bor. — Ad *Mycenam* vergit.

14. **Collybia Bresadolæ** Sacc. et D. Sacc. *Collybia badia* Bres. Myc. 68
Lusitanici novi, in Atti R. Acc. di Sc. Lett. ed Arti degli Agiati

in Roveredo, vol. VIII, 1902, p. 129 (nec Quél. 1901). — Pileo carnosulo, e convexo subexpanso, haud hygrophano nec margine striato, badio, 1,5-2,5 cm. lato: lamellis subconfertis postice sinuato-adnexis, acie integra, luride carneolis; stipite tereti fistuloso, glabro, pileo concolori, radicato, simul cum radice 3-5 cm. longo, 2 mm. circ. cr.; carne pallide subcarneola, inodora et insipida; sporis obovatis, 6-7 × 4; basidiis clavatis, 20-25 × 6-7, hyalinis; trama subhymeniali cellulosa; contextu lamellarum e cellulis cylindraceis, latis conflato.

Hab. ad terram pr. Setubal Lusitaniæ.

15 **Collybia subdrycophila** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 69
Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo carnosulo, convexo expanso, flaccido, centro obtuso v. umbilicato-depresso, gilvo-brunneo, levi, glabro, margine sæpe undulato, 1,5-3,5 cm. diam.; stipite fistuloso, compresso, levi interdum sulcato, 3-5 cm. longo, 3-5 mm. cr.; lamellis adnatis, confertis, angustis ca. 1 mm. latis, flavidis; cystidiis clavatis 20-30 × 7-9; sporis subglobosis, hyalinis, 3-4 μ. diam.

Hab. ad truncos, Kamerun Afr.

MYCENA Fr. — Syll. V p. 251, IX p. 34, XI p. 20, XIV p. 82, XVI p. 26.

1. **Mycena fusco-purpurea** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 70
Syll. XVI, p. 1111 (nomen). — Pileo submembranaceo v. carnosulo, convexo-expanso, centro depresso-umbilicato, pruinoso fusco-purpureo 2-3 cm. diam.; stipite subfistuloso, tereti curvato, striatulo 2-3 cm. longo, 2-3 mm. crasso concolori; lamellis sinuoso-adnatis interdum dente decurrentibus, subconfertis, ventricosis, acie subcrassiusculis, atro-purpureis; sporis ellipsoideis v. ovoideis, 3,5-4 × 3-3,5 hyalinis.

Hab. in caudicibus putridis, Kamerun Afr.

2. **Mycena Arcangeliana** Bres. in Barsali Agg. Micol. Pis in Bull. 71
bot. It. 1904, p. 78. — Cæspitosa; pileo submembranaceo e conico campanulato expanso-umbonato, ad medium striato, pallido, umbone fuscidulo, dein unicolore, 1.5-3 cm. lato; lamellis subconfertis, postice adnato uncinatis, albis, demum læte roseis; stipite tereti v. rarius compresso, glabro, nitido e fumoso-violaceo fuscidulo, fistuloso, basi radice albo-strigosa prædito, carne pallida, stipitis subcartilaginea, intus fibrosa, fuscidula, odore forti, fere carnis anatæ, sapore miti; sporis obovoideis v. subglobosis, hyalinis,

6–9 ≈ 4,7–6, plerumque 6-7 ≈ 5-5,5; basidiis clavatis 25-30 ≈ 6,5-7,5; cellulis aciei lamellarum obovoideis apice muriculato v. scabro, tenuiter tunicatis, 30-38 ≈ 15-30.

Hab. ad stipitem Pritchardiæ filiferæ in horto botanico Pisano Dec. (G. Arcangeli). — Ab affini *M. levigata* differt odore forti, lamellis demum roseis et stipite fusco.

3. **Mycena cuspidata** Massee in Bot. Tidsskrift, Copenhagen 1902, 72
vol. 24, p. 213. — Pileo e conico-campanulato subexpanso, umbone valde prominente prædito; margine undulato, striato, luteo-brunneo, centro atro-umbrino, 2-3 cm. lato; stipite fistuloso, æquali, glabro, pallido, 4-5 cm. longo; lamellis confertis, fere liberis, ventricosis, pallidis sporis 4 - 2,5, hyalinis.

Hab. in ligno emortuo Koh Chang Noi, Siam Asiæ merid. — *M. galericulatæ* Fr. affinis.

4. **Mycena rugosoides** Peck in Rep. of the State Botanist, 1902, p. 22, 73
tab. *M*, fig. 17-34. — Pileo carnoso sed tenui, campanulato, vulgo subumbonato, glabro, hygrophano, æquali, margine striato, in sicco pallido et irregulari, irregulariter radiato-rugoso, colore variabili 12-24 mm. lato; lamellis subdistantibus, rotundatis, stipitem versus emarginatis, adnatis, albidis v. albido-isabellinis; stipite longo, æquali, glabro, cavo, albido, radicato, basi villoso tomentoso rufo-brunneolo, 3,5-7,5 cm. longo, 1-3 mm. crasso; sporis ellipsoideis 7,5 ≈ 5, granulosis.

Hab. gregaria in muscosis truncisque dejectis Coniferarum, North Elba, Amer. bor.

5. **Mycena bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, 74
Syll. XVI, pag. 1111 (nomen). — Pileo carnosulo-membranaceo campanulato v. subconico, cinereo, radiato, obscuriori striato, subruguloso, vertice obtuso v. subumbonato, atro, 1–3 cm. diam.; stipite tenaci, subfarcto, striato interdum torto, cinereo, 3-4 cm. longo, 3-4 mm. cr.; lamellis sinuoso-adnexis, subconfertis, lanceolatis, pallidis; sporis subglobosis levibus, 3,5-4 μ. diam., hyalinis.

Hab. ad truncos putres, Kamerun Afr.

6. **Mycena cinerea** Massee et Crossl., The Naturalist 1902, p. 1. — 75
Tota grisea vel pallide plumbea; odore intenso raphanoideo; pileo 1,5-2 cm. diam., subgibboso vel obtuso, dein expanso, margine striatulo, in sicco pallido sericeoque; lamellis aduatis, subdistantibus, margine pallidis; sporis ellipticis, levibus, albis, 8 ≈ 5; cystidiis fusiformibus; stipite 5-7 cm. longo, tenui, cylindrico, glabro, fistuloso, basi lanuginoso, albo.

Hab. in graminosis, Selby, Yorks, Kew, Surrey, in Britannia. — *M. plumbeæ* Fr. affinis.

7. **Mycena conocephala** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 334. — Cæspitosa; pileo submembranaceo, primo subovoideo dein conico-campanulato, albido, apice conico-acuto brunneolo, radiatim striato, levi, glabro 1-2 cm. diam.; stipite fistuloso, æquali-tereti, levi, glabro, substriato, pallido, 2-3 cm. longo, 1 mm. cr.; lamellis adnatis, subconfertis, subventricosis 1-1,5 mm. latis, pallidis; sporis subglobosis v. ovoideo-ellipsoideis, 1-guttulatis, 5-7 × 4-6, hyalinis. 76

Hab. ad terram, Saharanpur-Garden Indiæ orient.

8. **Mycena Aschi** P. Henn. in Engl. Bot. Jahrb. 1901, p. 55, Syll. XVI, p. 1111 (nomen). — Pileo tenui membranaceo, campanulato-expanso, centro subconico-papillato, radiato-striato, ca. 1 cm. diam., albido; stipite fistuloso, gracili, levi, glabro 4–6 cm. longo. 1 mm. crasso, albo; lamellis sinuoso-adnatis, subdistantibus, lanceolatis, pallidis; sporis ellipsoideis, 4-5 × 3, hyalinis. 77

Hab. ad terram, Kamerun Afr.

9. **Mycena rubidula** Bres. Mycologia lusitanica, in Broteria vol. II, 1903. p. 87. *Myc. rubro-marginata* Fr. p. p.? — Pileo conico-campanulato, membranaceo, centro umbonato, carnosulo, glabro, striato-sulcato, rubello, margine expallido. 8-12 mm. lato; lamellis distantibus, adnato-subuncinatis, albis, acie fuscidulo-rubella; stipite pallido, fistuloso, glabro 3-4 cm. longo, 1-2 mm. cr., basi albo-tomentoso-fibrilloso; basidiis clavatis 25-30 × 7-8; sporis hyalinis, sublimoniformibus, 7-9 × 4,8-5,5. 78

Hab. ad corticem Eucalypti globuli, in Lusitania. — Species hæc *Mycenæ rubro-marginatæ* Fr. admodum proxima, forte hucusque cum ista confusa, nam cum eiusdem figura in Fries Icon. sel. Tab. 78, fig. 4 bene convenit at ab hac specie, qualis a me et etiam ab auctoribus est intellecta, satis superaque distincta (Bres. l. c.).

10. **Mycena illuminans** P. Henn. Hedw. 1903, p. (309). — Pileo tenui membranaceo, subcampanulato, dein convexo, pallido v. flavidulo, medio umbilicato-depresso, viscido, obscuriori, radiatim striato plicatoque, 5-15 mm. diam.; stipite fistuloso, tereti, curvato, pallido, levi, glabro, 5-12 × 0,7–1 mm., basi bulbilloso subdiscoideo, usque 2 mm. incrassato; lamellis sinuoso-adnatis, subdistantibus, inæquilongis latisque medio usque 2 mm. latis, ventricosis, utrinque at- 79

tenuatis, pallidis v. albis; basidiis clavatis 20-25 × 6-8; sporis globosis levibus, 1-guttulatis, hyalinis, 6-8 μ. diam.

Hab. ad truncos Calami in horto Bogor. Javæ (Volkens). — Vivide phosphorescens.

11. **Mycena sphærospora** Massee in Kew Bull. 1901, p. 161. — Pileo campanulato, sicco, levi, olivaceo, 4-6 mm. lato; lamellis annexis, angustis, subdistantibus, albido-olivaceis; stipite filiformi, basi incurvato, pileo concolori, 2-3 cm. longo; sporis hyalinis, globosis, verruculosis, 4 μ. diam. 80

Hab. in silvulis, Old Calabar Africæ occident.

EOMYCENELLA Atkins. Bot. Gaz. 1902, p. 36 (Etym. *eos* primitivus et *Mycena*). — Fungus stipitatus, pileatus. Pileus e campanulato expansus, imperfecte lamellatus, tenuissimus, e filamentis articulatis, ramosis, radiantibus formatus, subtus remote anguste radiatim plicato-lamellatus, lamellis stipitem non attingentibus, trama rudimentali. Basidia clavata, tetraspora. Sporæ 1-cellulares, hyalinæ. Ad *Mycenas* et *Marasmios* tenuissimos accedere videtur.

1. **Eomycenella echinocephala** Atkins. l. c. f. 1. — Tota 3-8 mm. alta, candida; pileo 0,5-0,75 mm. lat., supra et margine echinulato-fimbriato; stipite filiformi pilis veluti capitellatis consperso; basidiis breve clavatis 9-12 × 6-9; sporis obovoideo-oblongis, levibus, basi subapiculatis, 6-8 × 3-4, hyalinis. 81

Hab. in foliis emortuis Rhododendri maximi, Blowning Rock N. C. Amer. bor.

OMPHALIA Fr. — Syll. V p. 308, IX p. 41, XI p. 23, XIV p 84.

1. **Omphalia calycinoides** P. Henn. Fungi Indiæ or. II, in Hedw. 1901, p. 334. — Membranacea tenuis, cæspitose fasciculata; pileo infundibuliformi, radiatim striato plicatoque albido, sicco flavido, margine subrepando, 1-2 cm. diam.; stipite fistuloso, gracili superne incrassato, subclavato, levi glabro v. substriato, e pallido brunneo, 1-1,5 cm. longo, 0,5 mm. lato; lamellis longe decurrentibus, triquetris, distantibus basi anastomosantibus usque ad 1 mm. latis, pallidis; basidiis clavatis, 18-20 × 6, sterigmatibus 4 subulatis; sporis subglobosis v. ellipsoideis, hyalinis, levibus 5-6 × 4. 82

Hab. ad terram v. in radicibus?, Saharanpur-Garden Indiæ orient.

2. **Omphalia sphagnophila** Peck, Harrim. Alaska Exped. Crypt. p. 47. — Pileo anguste obconico et centro depresso, demum tubiformi 82

v. subinfundibuliformi, tenui, glabro, albido v. pallide flavo; lamellis latiusculis, distantibus, longe decurrentibus, flavis, interstitiis sæpe venosis; stipite brevi, solido v medullato, pruinoso v. minute tomentoso, albido, basi albo-mycelioso; sporis late ellipsoideis, 6-7 × 4-5.

Hab. inter Sphagna, Port Clarence Alaska (Trelease). — Pileus 1-2 cm. lat.; stipes 1-2 cm. long., 2-4 mm. cr. *Omph. umbelliferæ* vere affinis, a qua forma pilei junioris et lamellis longius decurrentibus distinguitur.

3. **Omphalia Arechavaletæ** Speg. Myc Arg. ser. I. in Ann. Soc. Ci- 84
cut. Argent. 1899, pag. 263. — Solitaria v. paucigregaria; pileo hemisphærico 10-15 mm. diam., convexo, carnosulo, exumbonato, centro glabro v. pulvisculo heterogeneo adsperso, margine integro, in juventute subinvoluto; carne tenui flocculosa, citrina; lamellis subangustis atque subconfertiusculis, antice acutis, postice truncato-adnatis denticuloque breviter decurrentibus, primo citrinis dein nubecula ex albo-violascente velatis; stipite erecto flexuosulo, sæpius compresso sæpeque longitudinaliter grosse parceque sulcato 20-25 mm. long. 2,5-5 mm. cr., basi attenuato, apice abrupte in pileum expanso, glabro, levi, inferne citrino medio flavo, superne aurantiaco et sæpe glauco-pruinosulo intus latissime fistuloso; sporis ovatis v. ellipticis, 12 × 6-7, nubiloso-farctis, hyalinis.

Hab. ad terram in pratis editioribus pr. Montevideo, Uruguay.

4. **Omphalia Stuckerti** Speg. Mycet. argent. ser. II, 1902, p. 49. — 85
Pileo primo hemisphærico, leniter umbilicato dein elongato infundibulari vel subcornucopiformi 5-8 mm. long. et diam., margine semper plus minusve involuto, glabro, fulvo, testaceo v. lateritio-aurantiaco; lamellis subconfertis, non tuberculatis, anguste linearibus utrinque acutis, 5-8 mm. long. et 0,5 mm. latis, subtenuibus acie integerrimis polymacriis, deorsum sensim longeque decurrentibus pallidioribus; stipite tereti v subcompresso fistuloso 6-12 mm. longo 0,5-1 mm. diam., pileo concolori, basi abrutiuscule subbulboso 2,5-4 mm diam.; basidiis et cystidiis subcylindraceis 16-20 × 4-5 hyalinis, levibus, sterigmatibus brevibus; sporis ovatis, apice altero obtusis, altero acutiusculis, 6-6.5 × 3,5-4, hyalinis, levibus, sæpius grosse 1-guttulatis.

Hab. ad radices superficiales Punicæ Granati, prope Cordoba in Argentina (T. Stuckert).

5. **Omphalia Campanella** Batsch — Syll. V, p. 327. var. **sparsa** 86
Peck in Rep. of the State Botanist. 1901, p. 964. – Pileo con-

vexo parce umbilicato interdum nigro-papillato, 8–12 mm. lato; lamellis luteis, decurrentibus, latiusculis, subdistantibus; stipite filiformi 2,5–5 cm. longo, æquali, glabro, cavo, nigro vel brunneo-nigro, basi tomentoso.

Hab sparsa in silvis Coniferarum, ad terram, Bolton, Amer. bor.

6. **Omphalia virginalis** Quélet XIX Suppl. des Champ. de Jura e des Vosges, pag. 2, planche III, fig. 4. — Pruinosa, translucida, alba; stipite capillari, 5–6 mm. long, basi inflato ibique filamentis sericeis radiantibus cincto; pileo convexo, dein applanato, 3–4 mm. lato, umbilicato, striato; lamellis arcuatis, remotis, latiusculis; sporis ovoideo-sphæricis, 8–9 μ. long., punctatis, hyalinis. 87

Hab. ad truncos muscosos, Jura Galliæ.

PLEUROTUS Fr. — Syll. V p. 339, IX p. 45. XI p. 24, XIV p. 88, XVI p. 36.

1. **Pleurotus lignatilis** (Pers.) Gill. — Syll. V, p. 344. — var. **albo-virens** Quél. *Omphalia lignatilis* (Pers.) Quél. var. *albo-virens* Quél., Assoc. franc. p. l'Avanc. Scienc. 1901, partie II, 1902, p. 494 tab. III, fig. 1. — Pileo convexo undulato, 4-8 cm. lat., umbilicato, pruinoso, albo; carne tenui, sapida, alba, odore farinæ; lamellis adnatis, confertis, tenuibus, undulatis, demum dentato-fimbriatis (ut in *Lentino*), albo-virentibus; stipite excentrico, farcto, tenaci, subradicante, pruinoso albo; sporis ovoideo-oblongis, 7-8 μ. longis, hyalinis. 88

Hab. cæspitosa ad Populos in viridario Tête-d'Or, Lyon, Gallia (M. Couvert).

2. **Pleurotus spadiceus** Karst. Fung. nov. Loennb. 1904, p. 1 (Finska Vetensk. Soc.). — Pileo suborbiculari, piano, carnosulo, cute gelatinosa, ut videtur, marginem versus submembranaceo, confertissime pellucide striatulo siccitateque cartilagineo, glaberrimo, spadiceo, circiter 10 cm. lato; stipite excentrico, incurvo, siccitate cartilagineo, praesertim apice furfuraceo, inferne incrassato, rufescente, circiter 3 cm. longo, 1 cm. crasso; lamellis adnatis, secedentibus, confertis, albis; cystidiis nullis; sporis subsphæroideis 3–4 μ. diam. 89

Hab. in regione Knopioënso, Sibiriæ Aug 1903 (O. A. F. Lönnbohm). — Ad *Pleurotum subpalmatum* proxime accedit.

3. **Pleurotus violaceo-cinerescens** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54, Syll. XVI, p. 1111 (nomen). — Imbricato-cæspitosus; pileo 90

carnoso, excentrico, convexo-conchiformi, violaceo-cinerescente, sparse obscurius squamuloso, 3-6 cm. longo, 2-5 cm. lato, margine tenui involuto; stipite excentrico v. laterali, farcto, subtereti usque ad 4 cm. longo, 1,5 cm. crasso, cinereo-striatulo; lamellis decurrentibus, subconfertis, 1,5-2 mm. latis, albo-flavescentibus; basidiis clavatis 20-25 × 6-8; sporis subglobosis, levibus, hyalino-flavescentibus 4,5-6 μ. diam.

Hab. in basi truncorum, Kamerun Afr.

4. **Pleurotus membranaceus** Massee in Kew Bull. 1901, p. 151. — 91
Pileo membranaceo, dimidiato, flabelliformi, margine ut plurimum lobato, albo, glabro 5-7 cm. lato; lamellis subconfertis, angustis, albis, postice decurrentibus; sporis ovato-oblongis, hyalinis 9-10 × 5-6.

Hab. in truncis, Poona, prov. Bombay Indiæ brit. (Woodrow).

5. **Pleurotus stratosus** Atkinson in Journ. of Mycol. 1902, p. 116. 92
Gregarius vel sæpe imbricatus; pileo sessili, late aliter brevi stipitato 2-5 cm. lato, 2-3 cm. longo, obovato vel late cuneato, margine plano, in exemplaribus majoribus crenato, viscoso, sordide albo vel pallide fulvo, minute tomentoso vel longis setulis in cæspitulos confertis, consperso, convexo vel depresso, tenui, duro, non striato; lamellis sordide albis vel maturitate pallide luteis, angustis, 1-1,5 mm., ad stipitem convergentibus, stipatis; basidiis clavatis 4-sporis 20-25 × 4-5; cystidiis numerosis, breve lanceolato-fusoideis, hyalinis vel sordide luteolis, 45 × 10-14; sporis ovoideis vel subglobosis, levibus, granulosis 2-3 μ. diam.

Hab. ad ligna putrida Cayuga Lake, Warner's Glen, Ithaca N. Y. Amer. bor.

6. **Pleurotus similis** Peck Rep. of the State bot. 1899, p. 841. — 93
Pileo carnoso 2,5-5 cm. diam., flexibili, spathulato, flabellato vel suborbiculari, convexo, glabro, albo vel luteo-albo; carne alba; lamellis angustis, subdistantibus, decurrentibus, basi distinctis, albis; stipite brevi, 6-12 mm. longo, 4-6 mm. crasso, glabro, basi villoso, solido, laterali vel excentrico, albo; sporis subellipticis 5-7,5 × 3-4,2.

Hab. in truncis emortuis Ostryæ virginianæ, solitarius v. cæspitosus, West Shokan Amer. bor. — *Pl. pantoleuco* affinis.

7. **Pleurotus Eryngii** (DC.) Gill. — Syll. V, p. 347. — var. **cæspitoso-terrester** P. Henn. in Hedw. 1901, p. 98, Syll. XVI, pag. 1111 (nomen). — Plerumque cæspitosus, pileo lente carnoso, tenaci, firmo, convexo, explanato dein medio depresso, irregulari, cinereo- 94

rubescente, interdum subsericeo, demum rimoso subsquamulescente, margine undulato, interdum lobato-inciso, 2-8 cm. diam.; stipite subexcentrico, firmo, tereti, subclavato, pallido usque ad 4 cm. longo, 0,5-1 cm. cr.; lamellis decurrentibus subdistantibus, tenacibus, angustis, pallide flavescentibus; sporis oblongo-ellipsoideis, 1-guttulatis, hyalinis, 8-11 × 6, levibus.

Hab. prope Biskra, Algeria.

8. **Pleurotus macilentus** Massee in Kew Bull. 1901, p. 161. — Pileo 95
flaccido, tenuissimo, flabelliformi, margine interdum lobato, albo flavido, glabro, striato, 4-5 cm. lato; lamellis latis, subconfertis, albidis, postice abrupte attenuatis; stipite laterali, brevi, 6-8 mm. longo crassoque; sporis ellipticis 9-10 × 6.

Hab. in ligno emortuo, Old Calabar Africæ occident.

9. **Pleurotus Harmandi** Har. et Pat., Champ. rec. au Jap., in Bull. 96
du Mus. d'Hist. nat. 1902, n. 2, p. 131. — Sparsus v. subcæspitosus, primitus clausus et subglobosus, sessilis, lateraliter uno puncto affixus, dein secundum æquatorium circumscissus, parte superiori in pileum antice liberum postice indehiscentem abeunte, parte inferiori tuberculiformi, limbo volviformi prædita, primitus libera, dein cum pilei margine concrescenti; pileo conchiformi, centro pallidiori depresso, integro v. sinuoso, squamoso, velutino, fulvo-brunneo, margine involuto; lamellis dilute luteis, decurrentibus, confertis, strictis, inæqualibus, simplicibus, basim versus distantibus magis venosulis, contextu carnoso, obscure luteo; basidiis 2-4-sterigmaticis, clavatis, 40-50 × 5-6; cystidiis apiculatis capitatisve; sporis globosis, levibus 9 μ. crassis.

Hab. in silva Chuiznipi, Tokyo Japoniæ (Harmand).

10. **Pleurotus bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54, 97
Syll. XVI, p. 1111 (nomen). — Pileo carnoso molli, flabellato v. reniformi, horizontali, sæpe lobato v. inciso-crenato, albido, pruinoso 2-4 cm. diam.; stipite laterali, late compresso, concolori ca. 5 mm. longo latoque, basi discoideo, byssino; lamellis decurrentibus latiusculis, subconfertis, inæquilongis, albidis; sporis cylindraceis, obtusis, basi oblique apiculatis, 8-10 × 3-3,5.

Hab. ad caudices emortuos, Kamerun Afr.

11. **Pleurotus portegnus** Speg. — Syll. V, p. 366. — var. **microspo-** 98
rus Speg. Myc. Arg. ser. II, 1902, p. 50. — A typo differt sporis minoribus, 6 × 3.

Hab. ad ramos dejectos putrescentes in silvula S. Catalina pr. Buenos Aires.

12 **Pleurotus minutus** Peck in Rep. of the State Botanist, 1901, p. 949. — Pileo minuto, reniformi vel suborbiculari, dein resupinato, interdum maturitate subreflexo, sæpe centro subdepresso 2-4 mm. lato, flocculoso-pruinoso, albo, margine involuto; lamellis inæqualibus, angustis, distantibus, decurrentibus, albis v. albidis; stipite brevi, excentrico, curvo, pruinoso albido, basi tomentoso, 2 mm. longo. 99

Hab. in truncis emortuis Betulæ prope Loonlake, Amer. bor.

13. **Pleurotus graminicola** (Fayod) Sacc. et D. Sacc. *Pleurotellus hypnophilus* Fayod olim nec B., *Pleurotellus graminicola* Fayod Ann. Acc. d'Agr. Torino 1893, p. 90. — Perpusillus, 3-11 mm. lat., reniformis, albus, inferne subcarneus, parasiticus; pileo sessili, sub lente pubescenti, margine inflexo, in juventute subcupulari; lamellis confertis, angustis, subcarneis; subhymenio subnullo; basidiis et cystidiis claviformibus; sterigmatibus binis-quaternis; sporis sublacrimiformibus, 7 × 3. 100

Hab. ad gramina in Pedemontio. — *Pl. craterello* et *Pl. hypnophilo* affinis.

14. **Pleurotus septicoides** P. Henn. F Amaz. I in Hedw. 1904, p. 184. — Pileo subresupinato basi affixo, sessili, tenue membranaceo, subreniformi, integro v. lobato, superne lacteo gilvescente, pruinoso, levi, basi subbyssino, 3–8 mm. diam ; lamellis radiantibus subdistantibus, inæquilongis, pallidis, in sicco alutaceis, angustis, c. 0,3 mm. latis; basidiis clavatis; sporis subglobosis hyalinis, levibus, 2,5–3,5 μ. diam. 101

Hab. ad ramos putres Rio Juruá, Juruá-Miry. — *Pleuroto septico* habitu proximus, sed sporæ omnino diversæ.

15. **Pleurotus rufipes** (Mass. et W. G. Smith) Sacc. et D Sacc. *Agaricus rufipes* Mass. et Sm. in Journ. of Bot. 1903. pag. 385. Pileo dimidiato v. reniformi, convexo, membranaceo, udo valde glutinoso, albo, centro salmonicolore, margine incurvato, stipite denique incurvato, viscoso-rubido, intus salmonicolore, medio albo, basi pubescente; lamellis adnatis, latis, distantibus, albis, interstitiis subroseis; sporis . . . . (non descriptis). 102

Hab. ad ligna in Britannia. — Pileus 3-4 mm. diam., stipes 4-5 mm. long., 0,6 mm. cr.

HYGROPHORUS Fr. — Syll V p. 378, IX p. 52, XI p 27, XIV p. 91, XVI p. 39.

1. **Hygrophorus** (*Limacium*) **castaneus** P. Henn. in Engl. Bot. Jahrb. 103

1901, p. 50, Syll. XVI, p. 1111 (nomen). — Pileo carnosulo, convexo v. centro depresso, viscido, granuloso vel verrucoso, castaneo, margine involuto, velo viscoso, ca. 0,5-1,5 cm diam ; stipite farcto, tereti pallide flavido, levi, glabro 1-2,5 cm longo, 1,5-2,5 mm. cr.; lamellis adnatis, subdecurrentibus, subconfertis, arcuatis, pallide flavis; basidiis clavatis, 23-25 × 6-8; sporis ellipsoideis v. ovoideis, hyalinis 6-8 × 3,5-4.

Hab. ad ramos putres, Kamerun Afr.

2. **Hygrophorus** (*Limacium*) **glutinosus** Peck in Rep. of State Botan. 104
1901, pag. 950. — Pileo carnoso, firmo, convexo glutinoso, albo, sæpe glutine luteo tincto, in sicco margine involuto, 2,5-5 cm. lato; carne alba; lamellis subdistantibus, adnatis, albis; stipite æquali, solido, albo, floccoso-tomentoso, inferne glutinoso, superne guttulis glandularibus consperso vel in sicco rubro punctulato 2,5 cm. longo, 6-8 mm. crasso; sporis 7,5-10 × 5-6.

Hab. ad terram in Amer. bor. — Ab *Hygr. gliocyclo* lamellis adnatis differt, ab *Hygr. eburneo*, stipite solido, superne rubro picto differt.

3. **Hygrophorus** (*Limacium*) **paludosus** Peck in the Torr Bot. Club, 105
1902, p. 70. — Pileo carnoso, convexo, obtuso verrucis luteo-brunneis dense vestito, 2-4 cm. lato; carne albida, sapore subacri, odore terreo; lamellis adnatis vel subdecurrentibus, subdistantibus, albidis, in vetustate griseo-luteo zonatis; stipite subæquali, longiusculo, flexuoso, basi subcurvulo, solido, glutinoso, albo, superne punctis luteis notato, in sicco longitudinaliter brunneo striato-fibroso, 5-10 cm. longo, 4-8 mm. crasso; sporis albis, subellipticis 8-10 × 5-7.

Hab ad terram turfosam, inter muscos, Greenville, Mich., Amer. bor. (B. O. Longyear).

4. **Hygrophorus** (*Limacium*) **Peckii** Atkinson in Journ. of Mycol. 106
1902, p. 114. — Gregarius vel sparsus, 6-10 cm. alt.; pileo convexo, margine sæpe curvulo, dein expanso depressoque vel subumbilicato fulvo vel fulvo-vinoso, 1-2,5 cm. lato, viscido, interdum griseolo, margine rubro-striato; lamellis latis, albis, stipitem versus luteolis, distantibus, arcuatis, decurrentibus; sporis ellipsoideis, subinæquilateralibus, lævibus, granulosis 6-8 × 4-5; stipite 2-4 mm. crasso, fragili, cavo, sæpe longitudinaliter fisso, odore fœtido.

Hab. in silvis, Cornell Heights, Ithaca (C. H. Kauffman), Blowing Rock, N. C. et Piseco, N. Y. (Doct. Peck).

5. **Hygrophorus** (*Limacium*) **pusillus** Peck in the Torr. Bot. Club. 1902, p. 69. — Pileo convexo, tenui, subviscido, glabro, albo, 1-2 cm. diam ; stipite brevi, glabro, cavo, albo, basi tomento mycelioideo albido donato, 2-2,5 cm. longo, 1-2 mm. crasso; lamellis arcuatis, subdistantibus, decurrentibus, albis; sporis 4-6 µ. longis. 107

Hab. ad terram in silvis, Moscow Mountains, Idaho, Amer. bor. (L. F. Henderson).

6. **Hygrophorus** (*Limacium*) **subviolaceus** Peck Rep of the State Bot. 1899, pag. 842, tab. *C,* fig. 11-15. — Pileo firmo, hemisphærico dein convexo, glabro, viscido, hygrophano, violaceo, in sicco pallido vel griseo 2,5-4 cm. lato; carne alba; lamellis arcuatis, distantibus, decurrentibus, pallide violaceis; stipite æquali vel utrinque conico, firmo, glabro, albo 2,5-4 cm. longo, 4-8 mm. crasso; sporis subglobosis vel fere ellipsoideis, 6-7,5 × 5-6. 108

Hab. in paludosis, Meadowdale, Amer. bor.

7. **Hygrophorus** (*Hygrocybe*) **miniatus** Fr. — Syll. V, p. 413. — var. **sphagnophilus** Peck Rep. of the State bot. 1899, p. 856. — Pileo late convexo, subumbilicato, rubro; lamellis adnatis, albidis, dein luteolis, interdum rubro-tinctis, raro margine rubris; stipite pileo concolori, basi albidulo, superne fragilissimo. 109

Hab. in muscosis Kasoag, Amer. bor

8. **Hygrophorus** (*Hygrocybe*) **pallidus** Peck in the Torr. Bot. Club. 1902, p. 69. — Pileo tenui, convexo, dein subplano, margine interdum recurvato undulatoque, glabro, hygrophano, pallide lilacino vel pallide violaceo, interdum margine striatulo, in sicco griseo-albo, 1,5-3 cm. lato; lamellis subincrassatulis, distantibus, arcuatis adnatis vel subdecurrentibus, pileo concoloribus, in sicco subcinereis; stipite tenui, æquali, glabro, cavo, albo, 2,5-5 cm. longo, 2-4 mm. cavo; sporis albis, subglobosis, 5-6 × 4-5. 110

Hab. ad terram, Massachusset, Amer. bor. (S. Davis). — *Hygr. sphærosporo* et *H. Peckii* affinis.

9. **Hygrophorus** (*Hygrocybe*) **subrufescens** Peck in Rep. of the State Botanist. 1902, p. 23, tab. *M,* fig. 1-6. — Pileo carnoso, margine tenui, convexo vel fere plano, sicco minute floccoso-squamuloso, pallide roseo vel griseo-roseo, 2,5 cm. lato; carne albida, roseo picta; sapore grato; lamellis subdistantibus, decurrentibus, albidis; stipite longiusculo, subæquali, flexuosulo, glabro, solido, albo, 3, 5-5,7 cm. longo, 4-8 mm. crasso; sporis ellipsoideis 7,5 × 5. 111

Hab. in silvis, Port Jefferson, Amer. bor.

10. **Hygrophorus** (*Hygrocybe*) **hypholomoides** P. Henn. in Engl. Bot. 112

Jahrb. 1901, p. 50, Syll. XVI, p. 1111 (nomen). — Pileo subcarnoso, convexo-expanso, flavo, sicco, levi, glabro, 2,5-3 cm. diam., centro obtuso, subaurantiaco; stipite farcto dein fistuloso, tereti, interdum flexuoso, glabro 2-5 cm. longo, 2-3 mm. cr., flavo-rubescenti; lamellis adnatis, subconfertis, flavidis, angustis; sporis subglobosis, levibus 4-5 μ. diam. hyalinis.

Hab. ad ligna putrida, Kamerun Afr.

11. **Hygrophorus** (*Hygrocybe*) **bipindensis** P. Henn. in Engl. Bot. 113
Jahrb. 1901, p. 49, Syll. XVI, p. 1111 (nomen). — Pileo carnosulo e campanulato expanso, centro depresso umbilicato obscuriori, margine striato, glabro, sicco aurantiaco-cinnabarino, 2,5-4 cm. diam.; stipite farcto, tereti, æquali, levi, 3-7 cm. longo, 2,5-4 mm. cr., concolori, basi fibroso; lamellis decurrentibus, subdistantibus, inæquilongis, luteis v. pallide aurantiacis, acie incrassatis; sporis subglobosis, levibus 3,5-4 μ. diam. hyalinis.

Hab. ad terram umbrosam, Kamerun Afr.

12. **Hygrophorus** (*Hygrocybe*) **juruensis** P. Henn. F. Amaz. I in Hedw. 114
1904, p. 181. — Pileo carnoso-ceraceo, rotundato, umbilicato, depresso v. infundibuliformi, levi, glabro, sicco margine radiato-striatulo, coccineo, 1-2 cm. diam.; stipite fistuloso, tereti, æquali v. subclavato, aurantiaco, levi, glabro, 2-4 cm. longo, 1-1,5 mm. cr.; lamellis decurrentibus, distantibus, inæquilongis, subventricosis, usque ad 2 mm. latis, pallide flavidis, ceraceo-rigidis, acie integris, obtusis; basidiis clavatis, 25-35 × 7-10: sporis ellipsoideis v. subovoideis, 1-guttulatis, hyalinis, 7-11 × 5-8, levibus.

Hab. ad terram argillaceam Rio Juruá, Bom Fim, Amazonia (Ule).

LACTARIUS Fr. — Syll. V p. 423, IX p. 56, XI p. 31, XIV p. 94, XVI p. 43.

1. **Lactarius fœtidus** Peck in Rep. of the State Botanist, 1901, 115
p. 949. — Pileo carnoso, firmo, subplano vel centro depresso, minute sericeo-lanuginoso, pallide luteo-brunneolo, dein brunneo, 5-7,5 cm. lato; carne albida, lacte albo, odore fœtido, sapore grato; lamellis subdistantibus, adnatis vel subdecurrentibus, luteo-albis, dein rubro-brunneis; stipite 2,5-5 cm. longo, 4-6 mm. crasso, æquali, solido, glabro, albido; sporis subellipsoideis vel subglobosis 6-8 μ. diam.

Hab. ad terram, in silvis Snyders, Rensselaer co., Amer. bor.

2. **Lactarius subdulcis** (Bull.) Fr. — Syll. V, p. 450. — var. **oculatus** 116

Peck in Rep of the State Botanist, 1902, p. 37. — Pileo humido, subhygrophano, vinaceo, centro (in umbone) macula parvula persistenti rufo-brunnea prædito; cetera ut in typo.

Hab. in abietinis, North Elba Americæ bor.

LACTARIOPSIS P. Henn. in Engl. Bot. Jahrb. 1901, pag. 51, Syll. XVI, p. 1111 (Etym. *Lactarius* et *opsis* facies). — Pileus carnosus, margine involuto cum stipite velo membranaceo conjunctus. Hymenophorum cum stipite contiguum; lamellæ adnato-decurrentes inæquales, ceraceo-rigidulæ, lactescentes. Sporæ globosæ subhyalinæ asperulæ. A *Lactario* differt margine pilei cum stipite (velo membranaceoo) conjuncto; cetera eadem.

1. **Lactariopsis Zenkeri** P. Henn. l. c. — Pileo carnoso, rigido, plano-convexo, centro umbilicato depresso, dein expanso subinfundibuliformi, flavo-brunneo, pruinoso 1-3 cm. diam., margine involuto, subrepando vel striato, primo cum stipite velo membranaceo conjuncto; stipite farcto, cylindraceo-subclavato, striatulo, concolori, postice annulato-marginato, basi attenuato, ca. 2-4 cm. longo, 3-6 mm. lato; lamellis adnato-decurrentibus, confertis, ceraceis, rigidulis, angustis ca. 1 mm. latis, flavo-ochraceis; cystidiis obclavatis 35-46 × 18-21; basidiis clavatis 20-26 × 7-9; sporis globosis, hyalinis vel minute flavidulis, aculeato-asperatis, 6-8 μ. d. 117

Hab. ad terram et in lignis putridis, Kamerun Afr. orient.

RUSSULA Pers. — Syll. V p. 453, IX p. 59, XI p. 29, XIV p. 96, XVI p. 46.

1. **Russula magnifica** Peck in Rep of the State Botanist 1902, p. 24, tab. *N*, fig. 1-4. — Pileo carnoso, convexo vel umbilicato, centro depresso vel infundibuliformi, glabro, viscido, æquali, centro squamoso 10-25 cm. diam; carne albida, odore saporeque alcalino, forti ingratoque; lamellis angustis, stipatis, inæqualibus, adnatis subdecurrentibusque, albidis roseoque pictis, dein rufo-brunneis; stipite æquali vel inferne constricto, solido, dein spongioso, albo 5-12,5 cm. longo, 16-36 mm. crasso; sporis albis, subglobosis, 7, 5-10 vel 6-7,5 μ. diam. 118

Hab. in silvis, Port Jefferson, Amer. bor.

2. **Russula indecorata** Karst. Fungi nov. Loennb 1904, p. 1 (Finska Vetensk. Soc.). — Mitis; pileo carnoso, ex convexulo explanato depressove, firmo, dein fragili ut plurimum regulari, subrugulose, rufo vel subbrunneo, marginem subpatentem, tenuem, demum le- 119

viter sulcatum versus pallidiore, pellicula sicca subseparabili tecto, carne alba, circiter 10 cm. lato; stipite cylindraceo, deorsum leviter incrassato, spongioso-farcto vel cavo, sublevi, albo, inferne obsolete rufescente, circiter 12 cm. longo, 2 4 cm. crasso; lamellis subliberis æqualibus, confertis, ex albo pallidis, simplicibus.

Hab. in silva acerosa montana, Syrjö, prope Mustiala Fenniæ, parce Aug. 1902 (P. A. Karsten).

3. **Russula cremoricolor** Earle in New York Bot. Gard. 1902, p. 340. 120
— Pileo convexo 6-10 cm., centro depresso, intense cremeo, disco obscuriore, levi, margine integro, incurvo; lamellis heterophyllis, subsinuosis, substipatis, planiusculis, pallide cremeis; sporis albis, globosis, parce echinulatis, 5.5-7 μ. diam.; stipite 4-6 × 2,5-3,5 cm., irregulari, subæquali, levi, albo, solido; carne albida, immutabili, sapore piperino, odore fere nullo.

Hab. ad terram in silvosis, Stanford University Californiæ. — *R. mustelinæ* Fr. affinis.

4. **Russula rugulosa** Peck Rep. of the State Bot., 1900, pag. 179, 121
tab. 72, fig. 12-18. — Pileo tenui, fragili, convexo, dein fere plano vel centro depresso, viscido, dein ruguloso-tuberculato, margine æquali dein tuberculato-striato, pellicula margine secedenti, 5-10 cm. lato, rubro; carne alba, sapore subnullo dein acri; lamellis stipatis, adnatis et subrotundatis, albis; stipite fere æquali, dein spongioso, albo 5-7, 5 cm. longo, 8-16 mm. crasso; sporis albis, rugosis, subglobosis, 7,5-10 μ. diam.

Hab. in silvis Adirondack, Amer. bor.

5. **Russula paxilloides** Earle in New York Bot. Gard. 1902, p. 341. 122
— Pileo expanso, subdepresso, carnoso, 5-9 cm. diam., disco albido plus minusve ad marginem integrum miniato, levi, viscidulo; lamellis anastomosantibus, subsinuosis, latis, subplanis albidis v. cremeo-luteolis; sporis pallide luteis, globosis e latere rugosis, 7-9 μ. diam.; stipite variabili 5-11 × 1,5-3 cm., æquali, levi, spongioso; carne albida, immutabili; sapore intense piperino; odore fere nullo.

Hab. ad terram in silvulis, Standford University Californiæ. — *R. veternosæ* Fr. affinis.

6. **Russula ventricosipes** Peck in the Bull. Torr. Bot. Club, 1902, 123
p. 70. — Pileo tenui, subconvexo, subplano vel parce centro depresso, glabro, pallide alutaceo usque brunneo-luteo, 5-7 cm. lato; carne alba; lamellis tenellis, angustis, adnatis, subsinuosis, albis vel albidis, in sicco decoloratis; stipite firmo, ventricoso, solido raro intus spongioso, subglabro, superne albido, basi rufulo, 5-7

cm. longo, 2,5 cm. crasso, ad medium paullo constricto; sporis late ellipticis vel subglobosis, 6-8 × 6.

Hab. in arenosis, South Yarmouth, Massac., Amer. bor. (S. Davis).

7. **Russula palustris** Peck Rep. of the State Bot., 1890, p. 842. 121
Pileo tenui, fragili, subgloboso vel hemisphærico, dein convexo v. subplano, viscido rufo-brunneo vel purpureo-rubro, margine tuberculato-striato, 5-7,5 cm lato; carne alba, pelliculam versus rubro-tincta; sapore acri; lamellis integris, substipatis, albidis dein luteolis; stipite æquali, glabro, spongioso dein cavo, fragili, albido, sæpe rubro-tincto, 4-7,5 cm. longo, 8-12 mm. crasso; sporis subglobosis, 1-nucleatis 7,5-10 μ. diam.

Hab. in paludosis sub Alni, Jayville, St. Lawrence co., Amer. bor. — *R. decoloranti* affinis.

8. **Russula granulata** Peck Rep. of the State Bot. 1899, t. *C*, f. 1-5. 125
— Pileo convexo, dein subplano vel centro depresso, viscido, minute granuloso-squamuloso, dein margine tuberculato-striato, intense luteo et rubro-brunneo tincto 5-7,5 cm lato; carne albida, sapore acri; lamellis angustis, stipatis, adnatis basi furcatis, albidis; stipite æquali vel summo abrupte contracto, glabro, spongioso, albido 2,5-3,5 cm. longo, 12-16 mm. crasso; sporis subglobosis 7.5 μ. diam.

Hab. in silvis, Denning, Ulster co., Amer. bor. — Rara! — var. **lepiotoides** Atk. apud Peck, Rep. of the State Bot., 1902, p. 37. A typo differt pileo rimoso-squamoso. Cetera ut in typo. In silvis, Piseco, Hamilton county, Amer. bor. valde frequens.

9. **Russula æruginescens** Peck Rep. of the State Bot. 1899, p. 843. 126
— Pileo convexo dein umbilicato vel centro depresso, glabro, viscido margine æquali griseo vel griseo-luteo 5-7,5 cm. lato; carne alba, sapore acri; lamellis angustis stipatis, 1-2-furcatis, adnatis vel subdecurrentibus, albis; stipite æquali, spongioso, albo, 2,5-5 cm. longo, 12-20 cm. crasso; sporis albis, subglobosis 7.5 μ. diam.

Hab. in silvis, Claryville, Americæ borealis. — *R. æruginea* affinis.

10. **Russula abietina** Peck Rep. of the State Bot. 1900, pag. 180, 127
tab. 72, fig. 1-11. — Pileo tenui, fragili, convexo, dein fere plano vel centro subdepresso, viscido, tuberculato, margine striato 2,5-6 cm. lato; carne alba, sapore grato; lamellis subdistantibus, ventricosis, stipitem versus angustatis, rotundatis, subliberis, albidis, dein pallide luteis; stipite æquali, apice conico, farcto vel cavo,

albo, 2,5-5 cm. longo, 6-10 mm. crasso; sporis luteo-ochraceis, subglobosis, rugosis 7,5-10 μ. diam.

Hab. in silvis inter truncos Coniferarum, Amer. bor.

11. **Russula integra** (L.) Fr. — Syll. V, p. 475. — var. **rubro-tincta** Peck Rep. of the State Bot. 1900, p. 164. — Stipite rubescenti; pileo intense rubro; lamellis pulvere lutea (sporæ) conspersis 128

Hab. ad terram prope Placid Lake, Amer. bor. (Miss N. L. Marshall et Miss H. C. Anderson).

12. **Russula delica** Fr. — Syll. V, p. 455. — var. **glaucophylla** Quél. Assoc. franc. p. l'avanc. scienc. 1901, partie II, 1902, p. 495. — Differt a typo lamellis glaucis, sapore acri piperato. 129

Hab. ad terram in Gallia. — Sec. Quél. huc spectat *Lactarius chloroides* et *L. Listeri* Krombh. t. 56, f. 8-9 et 56, f. 1-4.

13. **Russula purpureo-lilacina** Fayod in Ann. R. Acc. d'Agr. Torino 1893, p. 87. — Pileo denso subtenaci, obscure purpureo subvelutino, primo hemisphærico, margine sinuato, dein pulvinato, 4,3-6 cm. lato, centro leniter depresso minute granulato-diffracto, margine levi; lamellis integris, postice attenuatis, antice rotundatis semper flavidis; stipite æquali farcto roseo-lilacino, præcipue primo lilacino-pruinoso; basidiis 36 × 6 emergentibus; sporis sphæricis verrucosis, 6 μ. diam. 130

Hab. catervatim v. solitaria ad terram in castanetis pinetisque in alpibus Pedemontii et Liguriæ orient. — Præcipue stipite basi *persicina* dignoscenda species.

14. **Russula flaviceps** Peck Rep of the State Bot. 1899, pag. 843, tab. *C*, fig. 6-10. — Pileo convexo vel centro depresso, glabro, viscido, initio margine æquali, dein subtuberculoso-striato, pallide luteo 5-10 cm. lato; lamellis stipatis, constrictis, acie subrotundatis, pallide luteolis, dein luteis; stipite æquali, farcto dein spongioso, albo, 4-6,5 cm. longo, 8-16 mm. crasso; sporis luteis, subglobosis 7,5 μ. diam. 131

Hab. in silvis Claryville, Amer. bor.

15. **Russula Earlei** Peck in Rep. of the State Botan. 1902, p. 25, t. *N*, fig. 5-10. — Pileo carnoso, firmo, hemisphærico, dein late convexo vel fere plano, interdum centro depresso, glabro, viscido, margine æquali vel interdum rimoso, stramineo, dein maturitate pallido, 3,5-6 cm. lato; carne albida vel luteola, sapore grato; lamellis tenuibus, distantibus, adnatis, initio albidis dein luteolis; stipite brevi, firmo, æquali, solido dein spongioso, albo, 2,5-3,5 cm. longo, 6-10 mm. crasso; sporis albis, subglobosis, 5-6 μ. diam. 132

Hab. in silvis, Port Jefferson, Amer. bor.

16. **Russula pulverulenta** Peck in the Torr. Bot. Club, 1902, p. 70. 133
— Pileo subtenui, convexo, dein centro depresso vel subumbilicato, margine æquali pulverulento-furfuraceo, griseo-brunneo, 3-5 cm. lato; carne albida, odore fœtido, sapore ingrato; lamellis substipatis, albis; stipite subæquali, superne albo, inferne pallido, dense luteo punctato; 3-4 cm. longo, 8-10 mm. crasso; sporis globosis 8 µ. diam.

Hab. in silvis, Michigan, Amer. bor. (B. O. Longyear).

17. **Russula luteo-basis** Peck Bull. Torr. Bot. Cl. 1904, p. 179. — 134
Pileo convexo, demum subplano, levi v. margine leviter et indistincte striato, roseo v. rubenti, demum toto pallidiori v. flavido v. centro tantum, cuticula separabili; carne alba v. albida; lamellis adnatis v. adnexis, æqualibus, cremeo-flavidis v. albidis, senio v. siccando infuscatis; stipite subæquali, leviter purpuraceo, farcto, albo, basi flavo; sporis subglobosis, 8 µ. diam., subinde tantum 7 µ.

Hab. ad terram pr. St. Louis Mo Amer. bor. (Glatfelter). — Pileus 2,5-7 cm. lat.; stipes 2,5-5 cm. long., 4-12 mm. cr.

18. **Russula deremensis** P. Henn. Fungi Afr. orient. II, in Bot. 135
Jahrb. XXVIII, p 36. — Pileo carnoso, primo subgloboso, dein convexo, centro depresso, flavo brunneolo, cute rimoso, 3-4 cm. diam., margine primo subinvoluto, dein acuto, tenui, levi, vix striatulo; stipite spongioso farcto, tereti, pallide flavo, 2,5-3 cm. longo, 0,8-1 cm. cr.; lamellis adnatis, vix decurrentibus, subconfertis, pro parte ad marginem furcatis, utrinque attenuatis, medio 3-4 mm. latis, pallide flavis; basidiis clavatis 23-30 × 8-10, sterigmatibus 2-4, subulatis ca. 4 µ. longis; sporis globosis 6-8 µ., episporio hyalino-flavidulo, aculeato asperatis, aculeis ca. 1 µ. longis.

Hab. ad terram, Derema, Usambara Afr. (Scheffler).

CANTHARELLUS Adans. — Syll. V p. 482, IX p. 63, XI p. 32, XIV p. 99, XVI p. 48.

1. **Cantharellus cibarius** Fr. — Syll. V, p. 482. — var. **multiramis** 136
Peck Rep. of the State Bot. 1899, p. 856. — Pileo regulari, margine recurvato; lamellis ramosissimis et anastomosantibus, ut in *C. floccoso*.

Hab. ad terram, Denning, Amer. bor. — Var. **neglectus** Souché in Bull. Soc. Myc. France 1904, p. 39. — A typo differt pileo tenuiore, dilutius citrino, lamellis brevius decurrentibus, pallide griseo-violaceis, stipite graciliori, odore fungi subnullo. Ad terram

prope Pramproux, Deux Sévres Galliæ. — Var. **albipes** Peck in Rep. of the State Botanist, 1902, pag. 37. A typo differt stipite albido. Ad terram in Amer. bor.

2. **Cantharellus subcarneus** Fayod in Annali R. Acc. d'Agr. Torino 1893, p. 81. — Pileo campanulato, repando, 2-4 cm. lat., margine undulato, tenui; plicis lamelliformibus, parum reticulatis, primo pure subcarneis, pruinosis, dein in aurantiacum vergentibus; stipite subexcentrico deorsum leviter attenuato, c. 6-10 mm. cr.; subhymenio denso unistratoso; basidiis claviformibus, longissimis, 55 × 11, tetra- vel disterigmaticis; sporis ellipsoideis, dorsaliter parum depressis, 15 × 5. 137

Hab. in graminosis vulgo catervatim, mense Aug. pr. S. Lorenzo Pellice in alpibus Pedemontii frequens. — *Canth. cibario* proximus sed minor, firmior, margine tenuior.

3. **Cantharellus miniatus** Fayod in Ann. R. Acc. d'Agr. Torino, 1893, p. 82, *Ch. ignescens* Fayod in Ann. Sc. Nat. Bot. IX ser., 9 tom., p. 304. — Minor; pileo 1,5-3,5 cm. lat., 1 mm. cr., excentrico, centro depresso, tenui, plus minus lobato et sinuoso, primo miniato dein subaurantiaco stipiteque subtiliter velutino; lamellis carneis, pliciformibus v. typicis, interstitiis venosis; stipite farcto vulgo curvato, miniato; sporis ellipsoideis, æquilateris, 8-10 × 5-6. 138

Hab. ad terram nudam, juxta vias, catervatim, Angrogna Pellice et S. Germano Pedemontii, Aug. — *C. subcarneo* affinis, sed colore, statura minore sporisque majoribus recedit.

4. **Cantharellus pulcrifolius** Peck in the Torr. Bot. Club, 1902, p. 71. Pileo exili convexo vel centro subdepresso, glabro, margine indistincte ciliato, albo, circ 1 cm. lato; lamellis simplicibus, inæqualibus, distantibus, decurrentibus, luteis; stipite 1-1,5 cm. longo, 1 mm. crasso, æquali, glabro, cavo, albo; sporis ellipticis 8 × 4-5. 139

Hab. in lignis putridis, Moscow Mountains, Idaho, Amer. bor. (L. F. Henderson).

5. **Cantharellus violaceo-griseus** P. Henn. in Engl. Bot. Jahrb. 1901, p 45, Syll. XVI, p. 1112 (nomen). — Pileo submembranaceo, infundibuliformi, levi, 2-3,5 cm. longo, 3-5 mm. cr., basi subbulboso incrassato, tomentosulo; lamellis pliciformibus, striiforme decurrentibus, inæquilongis, haud dichotomis, pallide violaceis; sporis haud conspicuis. 140

Hab. ad ligna putrida, Kamerun Afr.

6. **Cantharellus dovrefjeldiensis** Henn. et Kirschst. in Hedw. 1902, p. (62). — Pileo minutissimo, subcarnoso, flavo vel citrino, con- 141

vexo, centro depresso-umbilicato, pruinoso, margine primo involuto dein undulato v. subcrispulo, 2-5 mm. diam.; stipite firmo, subtereti, pallido, pruinoso 2-2,5 mm. longo, 0,5-0,8 mm. crasso; lamellis distantibus, pliciformibus, crassis, inæquilongis, haud dichotomis, flavidis; basidiis clavatis 2-4-sterigmaticis, 20-24 × 4-6; sporis ovoideis, hyalinis, intus granulatis, 4-5 × 3-3,5.

Hab. ad terram, Dovrefjeld Norvegiæ (W. Kirschstein).

7. **Cantharellus ochraceus** (Pat.) Sacc. et D. Sacc. *Neurophyllum ochraceum* Pat. in Duss Enum. Champ. Guad. 1903, p. 38. — Rigidus, lignescens, ochraceo-rufescens, flabellatus, applanatus, convolutus, inciso-lobatus, laciniis plus minus imbricatis e trunco communi seu stipite, infra rotundato, supra canaliculato duro orientibus; facie super. velutina, levi v. undulato-tuberculosa, margine rotundato, tenui, sinuato, angusto recto v. inflexo; hymenio infero longe decurrenti, venis obtusis, parum eminentibus, confertis simplicibus ramosisve percurso; basidiis ovoideis 25-30 × 15 deorsum longe stipitiformi-tenuatis; sterigmatibus 2-4; cystidiis nullis; sporis ochraceis, ovoideis, verrucosis, 16-20 × 6-10, basi tenuatis. 142

Hab. ad ligna emortua in silvis Rains-Jaunes, Guadelupa. — Trama granulosa, dura, pallida, strato corticali molliori crasso, ochraceo tecta. Fungus totus 10-15 cm. long., stipes 3-5 cm. long. Affinis *C. clavato* sed colore pilei sporisque verrucosis diversus.

8. **Cantharellus bryophilus** Peck in Harrim. Alaska Exp. Crypt. p. 46. — Pileo tenui, dimidiato, flabellato v. subspathulato, raro lobato, glabro plerumque albo-tomentoso, sessili basi plus minus lata; lamellis angustissimis, ramosis v. furcatis, remotis; sporis late ellipsoideis v. subglobosis, 6-7 × 5-6. 143

Hab. inter muscos Muir Glacier Alaska (Trelease). — Pileus 1-2,5 cm. lat. A *C. muscigeno* pileo azono et diverse colorato distinguitur. Specimina sicca nigrescunt.

9. **Cantharellus pedicellatus** (B. Lázaro) Sacc. et D. Sacc. *Dictyolus pedicellatus* B. Lázaro in Bol. de la Soc. espan. de Hist. Nat. 1902. p. 154, t. III, f. *h-o* (absque diagnosi). — Pileo stipitato dimidiato flabellato, flavo-pallido, margine sinuoso, parce carnoso; hymenio concolore, remote venoso, venis parum prominulis, simplicibus v. sæpius bi-trifurcatis; stipite cylindrico angustissimo flavo-aurantio sursum vix dilatato, basi nonnihil incrassato; sporis . . . . (non descriptis). 144

Hab. ad terram in pratis de la Herrería del Escorial Hispaniæ

(Maximo Laguna). — Pileus 0,5 cm. alt.; stipes 0,5 cm. alt. A *C. Lagunæ* colore et minutie diversus.

10. **Cantharellus Lagunæ** (B. Lázaro) Sacc. et D. Sacc., *Dictyolus Lagunæ* B. Lázaro in Bol. Soc. españ. de Hist. Nat. Madrid 1902, p. 153, t. III, f. *a-g* (absque diagnosi). — Pileo stipitato dimidiato-flabellato, pallide griseo, sicco sordide griseo opaco, parce carnoso, margine 1-2-fisso et subsinuoso; hymenio remotiuscule venoso, venis parum prominulis, obtusulis, simplicibus, raro bifidis; stipite cylindrico sursum vix dilatato et applanato, pileoque concolore, deorsum olivascente, in sicco fere albo; sporis 145

Hab. inter muscos ad terram, El Escorial Hispaniæ (Maximo Laguna). — Pileus 1-2 cm. lat.: stipes 0,5-1 cm. alt., 1 mm. cr.

11. **Cantharellus helvelloides** P. Henn. F. Amaz. I in Hedw. 1904, p. 181. — Pileo stipitato subtremelloso-membranaceo, helvelloideo-lobato, plicato, rufo, 2,5 cm. diam.; stipite fistuloso, subtereti compresso, pallide brunneolo vel rufescente, pruinoso, 1-2 cm. longo, 1-1,5 mm. cr. hymenio reticulato-venoso, rufo, venis subpliciformibus, paullulum elevatis, interdum obsoletis; sporis subglobosis, 2,5-3 μ. diam., hyalinis. 146

Hab. ad truncos putres, Rio Juruá, Juruá-Miry, Amazonia (Ule). — Ob naturam subtremellosam ad Tremellaceas nutat, hinc ulterius inquirenda species.

TROGIA Fr. — Syll. V p. 635.

1. **Trogia cinerea** Pat. Champ. de la Guadeloupe, ser. III, in Bull. Soc. Myc. de France, T. XVIII, fasc. II, 1902 — Pileo membranaceo integro subinfundibuliformi, glabrescente, griseo, margine involuto; stipite farcto, cylindrico, regulari albido, centrali, glabro, basi mycelio discoideo albo, angusto cincto; lamellis decurrentibus, simplicibus, æqualibus, copiosis, angustissimis, crassiusculis, rufescenti-pallidis, pruinulosis, acie obtusa vel canaliculata; sporis hyalinis, ovoideo-subglobosis, 6-7 μ. diam., levibus. 147

Hab. in fragmentis putridis Hoffmanniæ tubifloræ in Guadalupa (Duss). — Pileus 8-10 mm. alt. et lat.; stipes 2-3 cm. long. 1-2 mm. crassus; lamellæ 0,5 mm. lat A speciebus affinibus colore diverso, stipite graciliore, pileo regulari etc. diversa.

2. **Trogia hispida** Massee in Kew Bull. 1901, p. 162. — Pileo orbiculari, conchiformi, resupinato, membranaceo, dorsi centro affixo, brunneo, hispido, 2-3 mm. lato; lamellis centro radiantibus, 148

confertis, angustissimis, acie incrassatis; sporis ellipsoideis, subhyalinis 5 × 3.

Hab. in ramis emortuis Akin Forest, prope Aburi, Gold Coast Africæ occident. — *T. Alni* Peck affinis.

RIMBACHIA Patouill. — Syll. XI p. 32, XVI p. 1112.

1. **Rimbachia ? camerunensis** P. Henn. in Engl. Bot. Jahrb 1901, 149
p. 45. — Sylll. XVI, p. 1112 (nomen). — Pileo membranaceo subgelatinoso, tubiformi, stipitato, erecto, lacteo, pagina externa levi, glabro cum stipite contiguo, 1-3 cm. alto, 1-2 cm. lato; stipite excentrico v. centrali 3-10 mm. longo, 1-1,5 mm. cr., concolori; hymenio superiorem partem infundibuliformem obtegente, primo levi dein striato-pliciformi, gyroso-reticulato; sporis haud conspicuis.

Hab. ad caudices putres, Kamerun Afr.

MARASMIUS Fr. — Syll. V p. 503, IX p. 65, XI pag. 32, XIV p. 101, XVI p. 50.

1. **Marasmius subplancus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 150
— Syll. XVI, p. 1112 (nomen). — Pileo coriaceo, campanulato-expanso, flavido, centro subumbilicato v. subpapillato, brunneo, obscuriore, radiatim striato sulcatoque, 3-6 cm. diam.; stipite cavo, corticato, alutaceo, striato, contorto, 6-12 cm. longo, 2-3 mm. cr.; lamellis adnatis subconfertis, late ventricosis, pallide flavidis.

Hab. ad terram, Kamerun Afr.

2. **Marasmius subpilosus** Peck Bull. Torr. Bot. Cl. 1903, p. 95. — 151
Pileo tenui, levi v. centro ruguloso, margine striato, pruinoso-pubescente, convexo v. subplano, subinde leviter umbilicato, albido, sæpe centro brunneo-flavido-tincto; lamellis latiusculis, ventricosis, adnatis, subsinuatis, albis, acie minute ciliatis; stipite gracili, tenaci, farcto v. cavo, pruinoso-pubescente, basi griseo-tomentoso, rufo-brunneo, sursum albo.

Hab. inter folia et ramulos in silvis udis, Idaho Amer. bor. (L. F. Henderson). — Pileus 1-2 cm. lat.: stipes 2,5-5 cm. long., 0,5-1 mm. cr.

3. **Marasmius pseudosplachnoides** P. Henn. in Engl. Bot. Jahrb. 152
1901, p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo-coriaceo, convexo, pallide flavo, centro umbilicato, brunneo, concentrice subzonato, radiato-striatulo, ca. 1 cm. diam.; stipite tenaci, fistuloso, 3-5 cm. longo, 1 mm. cr., flavo-brunneo, basi in-

crassato, strigoso; lamellis adnatis subconfertis, angustis, brunneolis; sporis globosis 3,5 μ. diam., hyalino-flavidulis, levibus.

Hab. in foliis putridis, Kamerun Afr.

4. **Marasmius Copelandi** Peck Bull. Torr. Bot. A. 1904, p. 182. — 153
Pileo tenui, molli late convexo, glabro, fulvo, sapore et odore fortibus, ingratis; lamellis paucis, inæqualibus, distantibus, adnatis, pallidis; stipite gracili, molli, cavo, deorsum velutino-pubescenti et brunneo, sursum pallidiore et minus pubescenti; sporis subfusoideis, uno apice acutioribus, 12-15 × 4.

Hab. in foliis emortuis Quercus densifloræ, Woodside California (C. B. Copeland). — Pileus 1-2 cm. lat.; stipes 4-6 cm. long., 1-2 mm. cr.

5. **Marasmius ochraceo-papillatus** P. Henn. Pilz. S. Paul. III, in Hedw. 154
1904, p. 203. — Pileo membranaceo, convexo-campanulato, centro depresso, subochraceo, conico-papillato, niveo, sericeo nitenti, villoso, margine plicatulo, 1,5-2 cm. diam.; stipite curvato, tereti, ferrugineo, subtomentoso, c. 1 mm. longo, 0,3 mm. cr.; lamellis adnexis, paucis, distantibus, ventricosis, flavidulis; sporis ovoideis v. subglobosis, hyalinis, 1-guttulatis, 4-5 × 4.

Hab. in ramis tenellis emortuis, Serra da Cantareira, S. Paulo Brasiliæ. — Pusilla species pileo albo-sericeo flavo-papillato distincta.

6. **Marasmius platensis** Speg. Myc. argent. ser. II, 1902, p. 51. — 155
Collybioides, scorteus, candidus, laxe cæspitosus; pileo convexo-applanato non hygrophano, tenacello, opaco, levi, 15-35 mm. diam., glabro, candido; carne tenacello-subflocculosa, 0,5-1 mm. cr. alba; lamellis 2-3,5 mm. latis, ex albo-cremeis, remotis adnatis subcrassiusculis, dense venoso-clathratis concoloribus; stipite albo, compresso, tenacello, pulverulento, 25-50 mm. long., 3-3,5 mm. lat., 1,5 cr., basi mycelio himantiaceo albo radicato; basidiis clavulatis, 20-25 μ. long., 6-7 μ. cr., tetrasporis hyalinis; sporis ex elliptico subnavicularibus, inferne acutiusculis 5-6 × 3-3,5, levibus, hyalinis.

Hab. ad folia putrida coacervata, S. Catalina in Argentina. — Species notis nonnullis ad *Heliomycetem* vergens, natura tamen recedens.

7. **Marasmius leptopus** Peck in Rep. of the State Botanist, 1902, 156
p. 25. — Pileo tenui, subconvexo vel fere plano, glabro, margine rugoso-striatulo, rufo-brunneo, 6-10 mm. lato; lamellis tenuibus, angustis, stipatis, adnatis, albis; stipite filiformi, glabro, cavo,

albido vel pallido 2,5-3,5 cm longo, 1-2 mm. crasso; sporis oblongis vel anguste ellipsoideis 7,5-8,5 × 3-4.

Hab. in foliis dejectis, in horto botanico Bronxpark N. Y. Americæ borealis.

8. **Marasmius jonides** Pat. in Duss Enum. Champ. Guadel. 1903, 157
p. 45. — Pileo orbiculari, e convexo plano, tenui submembranaceo, opaco, centro sordide violaceo, marginem versus brunneo, 2-6 cm. lat., glabro, sub vitro pulverulento, cute e cellulis rotundo-ellipsoideis, tenui-tunicatis, levibus, 20-50 × 20-30, materie violacea v. brunnea farctis formata; hymenio albo-flavido; lamellis distantibus, angustis, inæqualibus, stipiti adnatis; basidiis 30 µ. long.; cystidiis cylindraceis apice rotundato-obtusis v. ovoideis, 30-50 × 12-16, tenui-tunicatis; sporis incoloribus, ovoideis, tenui-tunicatis, 10 × 3; stipite centrali, cylindraceo, 2-4 cm. longo, 1-3 mm. cr., regulari, rufescente, ubique pilis patulis albis copiosis vestito.

Hab. ad terram, in silvis Trois-Rivières in Guadalupa (Duss).

9. **Marasmius hygrocyboides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 158
— Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, convexo, flavo-subaurantiaco, radiatim striato, medio umbilicato v. depresso papillatoque atro-aurantiaco, 6-11 mm. diam.; stipite tenaci, filiformi, fistuloso, tomentosulo 1-2 cm. longo, 0,5-0,8 mm. cr., flavo-brunneolo; lamellis adnatis, subconfertis, lanceolatis flavo-aurantiacis.

Hab. ad ramos putres. Kamerun Afr.

10. **Marasmius griseo-flavus** P. Henn. in Engl. Bot. Iahrb. 1901, 159
p. 46. — Syll. XVI, pag. 1112 (nomen). — Pileo membranaceo, campanulato-expanso, centro obtuso v. subumbilicato, griseo-fuscescente, margine striatulo, 1-2 cm. diam.; stipite tenaci, fistuloso, tereti, pallido, pruinoso, basi subincrassato, 1,5 cm. longo, 1-2 mm. cr.; lamellis sinuoso-adnatis, subconfertis, latis, flavis; sporis subglobosis, 3-3,5 hyalinis.

Hab. ad folia putrida, Kamerun Afr.

11. **Marasmius glaucopus** (Pat.) Sacc. et D. Sacc. *Androsaceus glauco-* 160
pus Pat. in Duss Enum. Champ. 1903, p. 43. — Pileo campanulato-convexo, margine involuto, plicato-sulcato, centro venoso-ruguloso, obscure rufo-purpureo, velutino, 2 cm. diam., cuticulæ cellulis erectis, rubris, apice oblongo-cylindrico; lamellis latis, parum confertis, inæqualibus, utrinque attenuatis, acie integris, venis nullis connexis, atro-purpureis, pruina glauca, copiosa; sporis incoloribus, ovoideis, 8 × 5; stipite 3 cm. longo, tenaci, cylindrico,

cavo, obscure fulvo-rubescente, apice præsertim pruina cinerea obducto, 3 mm. cr.

Hab. in trunco Chrysophylli, Pointe-Noire, Guadalupa. — *M. atrorubenti* affinis, sed robustior, stipite crassiore, lamellis aliter coloratis.

12. **Marasmius flavidulus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 161
— Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato expanso, centro umbilicato v. depresso, papillato, radiato-striato v. subsulcato, flavidulo, 2-3 cm. diam.; stipite fistuloso, gracili subcorneo, flavidulo, pruinoso, 6-10 cm. longo, 1-1,5 mm. cr. lamellis adnatis, subconfertis, ventricosis 2 mm. latis, concolaribus.

Hab. ad folia emortua, Kamerun Afr.

13. **Marasmius elæicola** P. Henn. in Engl. Bot. Jahrb. 1901, p. 49. 162
— Syll. XVI, pag. 1112 (nomen). — Pileo coriaceo, campanulato expanso, centro umbonato, pallide flavo, radiato striato, margine undulato, 3-5 cm. diam.; stipite fistuloso, tereti, flexuoso, æquali, substriato, flavo v. flavo-brunneolo, usque ad 10 cm. longo, 2-3 mm. cr., basi incrassato, curvulo; lamellis adnatis breve decurrentibus, inæquilongis, late subventricosis, pallidis v. flavidulis; sporis ellipsoideis, levibus, 5-7 × 3,5 hyalinis.

Hab. ad stipites Palmarum oleiferarum, Kamerun Afr.

14. **Marasmius biformis** Peck in Rep. of the State Botanist, 1902, 163
p. 25. — Gregarius; pileo tenui, submembranaceo, campanulato vel fere plano, sæpe umbilicato, glabro, luteo vel pallide brunneo, striatulo, in sicco pallide griseo, ruguloso striato, 8-16 mm. diam.; lamellis stipatis, adnatis, ad stipitem conjunctis, griseis, cremeo-luteo-tinctis; stipite filiformi, farcto vel subcavo, pubescenti, brunneo, in sicco cinereo, interdum basim versus brunneo, 2,5 cm. longo, 1 mm. crasso.

Hab. in Coniferis, Sandlake, Amer. bor.

15. **Marasmius albo-farinaceus** P. Henn. in Engl. Bot. Jahrb. 1901, 164
p. 49. — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato, obtuso v. centro umbilicato-depresso obscuriori, radiato striato v. subplicato, incarnato, 2-4 cm. diam.; stipite fistuloso, subcorneo-corticato, gracili, fusco-brunneo, albido, pulverulento, subtomentosulo, 5-7 cm. longo, 1,5-2 mm. cr.; lamellis adnatis inæquilongis, confertis, angustis, albidis, ca. 1 mm. latis.

Hab. ad folia putrida, Kamerun Afr.

16. **Marasmius subomphalodes** P. Henn. F. Indiæ or. II, in Hedw. 165

1901, p. 329. — Calopus; pileo membranaceo-tenaci e convexo expanso, centro depresso, infundibuliformi, levi, glabro, radiatim substriato 1-2 cm. diam., isabellino; stipite fistuloso, tenaci-corticato, gracili, cinnamomeo, levi, glabro, 2-4 cm. longo, 1-1,5 mm. cr., basi incrassato; lamellis decurrentibus, tenui-lanceolatis, ca. 1 mm. latis, pallide isabellinis; sporis haud conspicuis.

Hab. in herbis putridis, cæspitosus, Saharanpur-Garden Indiæ orient.

17. **Marasmius reticulatus** P. Henn. in Engl. Bot. Jarb. 1901, p. 46. 166
— Syll. XVI, pag. 1112 (nomen). — Pileo tenui, membranaceo, translucente, campanulato, centro depresso 1,5-3 cm. diam., radiatim striato, cinereo; stipite fistuloso, corticato, tereti, æquali, testaceo, 4-7 cm. longo, 2-3 mm. cr.; lamellis adnatis, subdecurrentibus, distantibus, angustis substriiformibus, reticulato-convexis, sepiaceis.

Hab. ad folia putrida, Kamerun Afr.

18. **Marasmius pseudo-calopus** P. Henn. in Engl. Bot. Jahrb. 1901, 167
p. 46. — Syll. XVI, p. 1112 (nomen). — Pileo tenui membranaceo, convexo-plano, umbilicato-depresso, radiato-plicato, pallide flavo, 1,5-3 cm. diam.; stipite fistuloso, subcorneo, atro-brunneo pruinoso, tomentosulo, superne pallido levi, 1,5-3 cm. longo, 1 mm. cr., basi discoideo; lamellis sinuoso-adnatis, flavidulis, subconfertis, angustis ca. 0,7 mm. latis; basidiis clavatis, 18-24 × 4,5-5,5, sporis subglobosis, levibus, 3,5 μ. diam. hyalinis.

Hab. ad ramos putres, Kamerun Afr.

19. **Marasmius pallide-sepiaceus** P. Henn. in Engl. Bot. Jahrb. 1901, 168
p. 48. — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, campanulato-expanso, obtuso, granuloso-squamuloso, pallide cinnamomeo, radiato-striato, 0,5-2 cm. diam.; stipite fistuloso, subcorneo, pruinoso, pallide brunneo, 0,5-1 cm. longo, 1-1,5 mm. cr., basi discoideo villoso, e mycelio rhizomorphoideo, filiformi, atro oriente; lamellis subtriquetro-decurrentibus, distantibus, ventricosis, pallide sepiaceis; sporis globosis 3-3,5 μ. diam., hyalinis.

Hav. ad ramos putres, Kamerun Afr.

20. **Marasmius missangoënsis** Pat. Bull. Soc. Myc. 1902, p. 299. — 169
Pileo primitus globoso, dein explanato, 2-10 cm. lato, tenui, membranaceo, glabro, rufo, margine sinuato, sulcis radiantibus, profundis, distantibus notato; lamellis paucis ventricosis, latiusculis, utrinque attenuatis, attingentibus, interstitiis latis, levibus; stipite procero, coriaceo, brunneo-atro, longitudinaliter striato, pruinoso, sursum attenuato, 12 cm. longo, 5-6 mm. crasso.

Hab. ad terram, Oubangui prope Missango (Dybowski). — *M. Sthulmanni* P. affinis.

21. **Marasmius cerussatus** Pat. in Duss Enum. Cham. Guadel. 1903, 170
p. 46. — Pileo orbiculari, convexo, centro mamillato, sulcato-rugoso, tenui, membranaceo, glabro, opaco, cerussato-albo, margine crenulato; lamellis integris, vix confertis, albo-flavidis (in sicco), adnatis, intermixtis brevioribus, venis connectentibus nullis; stipite centrali, gracili, æquali, farcto, sordide albo, non pellucido, glabro, e mycelio membranaceo, albo, matricem ambiente oriundo.

Hab. ad ramos putres in silvis Pointe-Noire, Guadalupa (Duss). — Fungus 8-15 mm. alt.; pileus 6-8 mm. lat.; stipes 1 mm. cr.

22. **Marasmius resinosus** Peck — Syll. V, pag. 522. — var. **niveus** 171
Peck in Rep. of the State Botanist, 1902, p. 38. — Totus fungus albus, cetera ut in typo.

Hab. ad terram, Port Jefferson, Amer. bor.

23. **Marasmius testaceus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. 172
— Syll. XVI, pag. 1112 (nomen). — Pileo tenui, membranaceo, campanulato, centro umbilicato, atro-testaceo, pruinoso, radiato-striato sulcatoque, margine pallidiori 1-1,5 cm. diam.; stipite fistuloso, filiformi, corneo, pallido v. stramineo nitenti, glabro, 3-6 cm. longo, 1 mm. cr.; lamellis collariato-connexis, distantibus, subintegris, lanceolatis, pallide testaceis.

Hab. ad ligna et folia putrida, Kamerun Afr.

24. **Marasmius thujinus** Peck in Rep. of the State Botanist, 1902, 173
p. 26. — Pileo membranaceo, hemisphærico vel convexo vel subumbilicato, subglabro, marginem versus striato, cinereo, lilacino picto, 2-3 mm. diam.; lamellis paucis, distantibus, adnatis, albis; stipite capillari, cavo, glabro, basi minute, sparse flocculoso, pallido, basi sæpe brunneo.

Hab. in foliis dejectis Thujæ occidentalis, North Elba, Amer. bor.

25. **Marasmius tomentosipes** Peck in the Torr. Bot. Club. 1902, p. 71. 174
— Pileo tenui, convexo, dein subplano, plerumque umbilicato, glabro, margine striato, brunneo-luteo vel ferrugineo, dein in sicco brunneo, 1-3,5 cm. lato; lamellis angustis, subdistantibus, inæqualibus, arcuatis, decurrentibus, pallide luteis, interstitiis venosis; stipite tenui 2-4 cm. longo, circ. 1 mm. crasso, duro, elastico, cavo, nigro-brunneo, tomentoso; sporis ellipticis 6-7 × 3-4.

Hab. in silvis Coniferarum, Moscow, Idaho, Amer. bor. (L. F. Henderson).

26. **Marasmius amazonicus** P. Henn F. Amaz. I in Hedw. 1904, pag. 183. — Pileo membranaceo, convexo-applanato, umbilicato, sanguineo, pruinoso, radiatim subplicato, c. 6 cm. diam.; stipite fistuloso, tereti compresso, subcarneo, corticato, striatulo, pallide brunneo, usque ad 11 cm. long, 2-3 mm. cr.; lamellis valde distantibus, (c. 20) medio ventricosis, c. 6 mm. lat., utrinque angustissimis, subpliciformibus alutaceis; sporis subglobosis, hyalino-flavidulis, 1-guttulatis, 3-4 μ. diam. 175

Hab. ad ligna putrida, Juruá Miry, Amazonia (Ule).

27. **Marasmius clitocybiformis** P. Henn. F. Amaz. I in Hedw. 1904, p. 182. — Cæspitosus; pileo carnosulo-membranaceo, sicco translucenti, rotundato, umbilicato depresso v. subinfundibuliformi, albido, radiatim striatulo, 4-6 cm diam.; stipite firmo lignescenti, tereti, æquali, levi, glabro, v. pruinoso, pallide fuscescenti, 5-7 cm. longo, 1,5-2 mm. cr., basi incrassato; lamellis decurrentibus, membranaceis, confertis, angustis, 1-1,5 mm. latis, pallide fuscescentibus; sporis haud conspicuis. 176

Hab. ad truncos putres, Rio Juruá, Miry, Amazonia (Ule). — Hic *Clitocybæ infundibuliformi*, hinc. *Mar. clitocyboidi* affinis.

28. **Marasmius superbus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo, convexo, centro umbonato, ruguloso-venoso, atro-violaceo, radiatim sulcato plicatoque violaceo, 3-9 cm. diam., margine repando, apicibus plicarum albidis; stipite fistuloso corneo-corticato, tereti interdum contorto, levi, glabro rufo-brunneo, 4-12 cm. longo, 3-5 mm. cr.; lamellis sinuoso-adnatis v. subliberis, collariatis, distantibus, ventricosis, ca. 1 cm. latis, albidis. 177

Hab. ad ligna putrida, Kamerun Afr.

29. **Marasmius subimpudicus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. — Syll. XVI, pag. 1112 (nomen). — Pileo membranaceo, campanulato v. subconico, centro pallido v. umbilicato, ruguloso, 7-15 mm. diam., rufo-brunneo; stipite corneo, fistuloso, gracili, superne pallido, inferne castaneo nitenti, 2-8 cm. longo, 0,5-0,9 mm. cr.; lamellis adnatis, angustis, subconfertis, pallidis v. flavescentibus; sporis ellipsoideis, 5-6 × 3,5-4, hyalinis. 178

Hab. ad ligna vetusta, Kamerun Afr.

30. **Marasmius sub-Curreyi** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. — Syll. XVI, p. 1113 (nomen). — Cæspitosus; pileo membranaceo, campanulato-expanso, centro obtuso-umbonato, flavo-lateritio, radiato-striatulo, 1,5-2 cm. diam., margine tenui, flaccido; stipite 179

filiformi, fistuloso, corneo, atro, brunneolo-squamuloso, superne pallidiori, 2,5-4 cm. longo, 0,7-0,9 mm. lato; lamellis collariato-connexis, confertis, lanceolatis, inæquilongis.

Hab. ad folia putrida, Kamerun Afr.

31. **Marasmius ochraceo-niger** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo-coriaceo campanulato, centro papillato, radiato-striato, ochraceo, pruinoso 1-1,5 mm. diam.; stipite filiformi, corneo, atro-castaneo, pruinoso, 2-5 cm. longo, 0,3 mm. cr.; lamellis collariato-connexis, paucis, ventricosis, pallide ochraceis. 180

Hab. in foliis putridis, Kamerun Afr.

32. **Marasmius geophyllus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 47. — Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, campanulato expanso, obtuso v. subdepresso, radiato, dense striatulo, cinereo-gilvo, centro obscuriori, 1-1,5 cm. diam ; stipite corneo, fistuloso, levi, glabro, superne flavo, inferne atro-castaneo, 1-2 cm. longo, 1-1,5 mm. cr. lamellis sinuoso-adnatis, inæquilongis, subconfertis, angustis, lanceolatis, cinereo-fuscidulis. 181

Hab. ad ligna putrida, Kamerun Afr.

33. **Marasmius Delilei** De Seyn. Bull. Soc. Myc. de France, 1901, p. 225, tab. VIII *bis* f. 2 (ex Delile). — Pileo demum umbilicato, depresso, membranaceo, lacteo, vetusto sordescente, margine reflexo striato; lamellis albis, latis, adnatis, remotiusculis, dimidiatis aut furcatis intermixtis; sporis oblongis basi acutis; cystidiis haud visis; stipite brevi, glabro, nigro, sursum albicante, sæpe excentrico, basi subbulbilloso. 182

Hab. in ramis, foliis, calamis pr. Montpellier Galliæ (Delile, Icon. ined.). — Pileus 15-20 mm. lat.

34. **Marasmius cinereo-flavidus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 48. — Syll. XVI, pag. 1113 (nomen). — Pileo membranaceo, campanulato, centro obtuso rotundato v. depresso, levi, glabro ad marginem substriato, cinereo, 0,5-1 cm. diam.; stipite fistuloso, corneo, brunneo, 1,5-3 cm. longo, 0,5 mm. crasso, levi glabroque, basi albo byssaceo; lamellis adnato-decurrentibus, distantibus, lanceolatis, flavidis; sporis ellipsoideis, 4-5 × 3-3,5, hyalinis. 183

Hab. ad caudices emortuos, Kamerun Afr.

35 **Marasmius Puttemansii** P. Hen. F. S. Paul. III in Hedw. 1904, p. 203. — Mycelio rhizomorphoideo, criniformi, repente, ramoso, atro; pileo submembranaceo, convexo radiato-plicato, atrocastaneo, opaco, medio discoideo umbonato, flavido, granuloso, papilla sub- 184

globosa v. hemisphærica grisea ornato, 3-5 mm. diam. stipite setiformi, corneo, atro, nitenti, levi usque ad 8 cm. longo, 0,2 mm. cr.; lamellis postice subcollariatis, distantibus, inæquilongis, anastomosantibus, ventricosis, usque ad 1 mm. latis, pallidis; basidiis clavatis; sporis subglobosis, hyalinis 2,5–3 μ diam.

Hab. ad folia putrida, Serra da Cantareira, S. Paulo Brasiliæ.

36. **Marasmius tosensis** P. Henn. Pilze Jap II in Hedw. 1904, p. 151. 185
— Pileo membranaceo subgelatinoso, convexo-campanulato, castaneo, levi, glabro 5-6 mm. diam.; stipite tereti corneo, atro brunneo, levi, glabro, c. 1,5 cm. longo, 0,5 mm cr.; lamellis adnatis, distantibus, (c. 10-14) ventricosis, acie obtusis, alutaceis; basidiis clavatis, 20 × 4-5, sporis subglobosis, 3,5-4 μ. diam , episporio granulato-verrucoso v. subechinato, flavidulo; mycelio rhizomorphoideo, 20 cm. longo, 0,5 mm. cr. atro, ramoso.

Hab. ad ramos emortuos, Tosa, Tokano-Mura Japoniæ (A. Akisawa). — Pileo subgelatinoso sporisque subechinatis mox dignoscenda species; a typo generis tamen nonnihil recedens.

37. **Marasmius amabilis** Har. et Pat. Journ. de Bot. 1903, p. 12. — 186
Pileo membranaceo, tenerrimo, primum campanulato, dein explanato, glabro, albido, venulis strictis, ramosulis cristatis e centro vix umbonato radiantibus notato; lamellis distantibus, strictissimis, integris ramosisve concoloribus; stipite corneo, cylindrico, levi, glabro, atro, apice pallidiori e basi alba tomentosa orto.

Hab. ad cortices Monimiæ anisatæ putres in silvis prope Meo-Nov, Nova Caledonia (Bernier). — Totus 4-10 cm. altus; pileus 2,5 cm. lat.; stipes 1 mm. cr.; lamellæ 0,5 mm. latæ. Ad Sect. *Chordales* spectat.

38. **Marasmius reniformis** P. Henn. in Engl. Bot. Jahrb 1901, p. 45. 187
— Syll. XVI, p. 1112 (nomen). — Pileo membranaceo, reniformi, striatulo, tessellato-subrugoso, niveo, pruinoso, 8-15 mm. diam.; stipite laterali, brevi, pallide brunneolo 0,6-0,8 cm. longo crassoque, discoideo-affixo; lamellis sinuoso-adnatis, paucis, distantibus, anastomosantibus, pallidis; sporis ovoideis, 5-6 × 3,5, hyalinis.

Hab. ad ligna putrida, Kamerun Afr.

39. **Marasmius discopus** Massee in Bot. Tidsskrift-Copenhagen 1902, 188
vol. 24, pag. 214. — Pileo convexo-expanso, demum disco depresso, udo, striato, lurido, margine incurvo 1-2 cm. lato; lamellis liberis, angustis, confertis, albidis; sporis hyalinis 5 × 3; stipite tenaci, fusco, incurvo, basi disco applanato albicante adnato, 3-4 cm. longo.

Hab. ad terram, prope Klong Son, Siam Asiæ merid. *Mar. stylobati* Berk. et Curt. affinis.

40. **Marasmius flabellatus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 46. 189
— Syll. XVI, p. 1112 (nomen). — Pileo tenui-membranaceo, flabelliformi v. palmatifido-lobato, pleuropede, radiatim striato, albido-flavescente, 2-6 cm. diam., margine crenato v. varie lobato; stipite plus minus elongato v. obsoleto, late compresso usque ad 2 cm. longo, 3 mm. lato, concolori, discoideo affixo; lamellis decurrentibus, inæquilongis, subconfertis 1-1,5 mm. latis, pallidis; sporis subglobosis, ellipsoideis, levibus, 3,5-4 × 3-3,5, hyalinis.

Hab. ad caudices putres, Kamerun Afr.

41. **Marasmius calosporus** (Pat.) Sacc. et D. Sacc. *Crinipellis calosporus* Pat. in Duss Enum. Champ. Guadel. 1903, p. 44. — Pileo sessili, resupinato, primitus pezizoideo, dein hinc fisso et fere dimidiato, tenuissimo, membranaceo, albo, glabrescente, margine levi v. sulcato; cutis cellulis stratosis, tenacibus, prælongis, crasse tunicatis, 4-5 μ diam ; lamellis parcis (5-7) albo-flavidis, distantibus, venis nullis connexis, tenuibus, integris, e puncto excentrico radiantibus; cystidiis clavatis, crasse tunicatis, incoloribus, superne sæpe incrustatis, 33 × 10-15; sporis ovoideis, levibus, 10 × 7, hyalino-roseolis, guttulas nonnullas lucidas continentibus. 190

Hab. catervatim in ramulis putridis Clibadii erosi, in silvis Bains-Jaunes, Guadalupa — Minutus vix 2 mm. latus, *M. asperifolio* et *M. nidulo* proximus.

LENTODIOPSIS Bubak Hedw. 1904, p. 196 (Etym. *Lentodium* et *Lentinus,* cui affinis). — Pileus carnoso-coriaceus, exsiccando persistens in stipitem centralem abiens; lamellis tenuibus, longe decurrentibus deorsum venose-connexis. Velum ad stipitem annulatim secedens v. radiatim diffractum. Sporæ cylindraceæ, hyalinæ.

1. **Lentodiopsis albida** Bubak Hedw. l. c. — Pileis albis, solitariis, 191
2-3 cm. latis, 0,5-1 cm. alt, glabris; stipite cum pileo continuo, 1,5-2 cm. alto, 9,8-1,3 cm. cr. cylindraceo, farcto, levi, cum pilei margine velo modo annuliformi modo laciniato connexo; lamellis tenuibus, usque ad medium stipitis decurrentibus, inferne reticulatim junctis, siccis flavidis; sporis breve cylindraceis, 10-14 × 3,5-4,5, hyalinis, crasse 1-guttatis, apice rotundatis, basi tenuatis v. oblique apiculatis.

Hab. ad radices vivas Abietum pr. Tabor Bohemiæ.

LENTINUS Fr. (incl. *Pano* p. p.). — Syll. V p. 571 et 614, IX p. 71 et 76, XI p. 39 et 41, XIV p. 117 et 122, XVI p. 61.

1. **Lentinus radicosus** Pat. Champ. des colon. franc., in Bull. du jard. colon. 1902, n. 2, p. 264, tab. II, fig. 3. — Pileo coriaceo, tenui, albido-rufo, 15 cm. lato, explanato, margine involuto, infundibuliformi, nec sulcato, nec striato, sed tomentosulo; lamellis fuscis, angustis, integris, valde adnatis, decurrentibus; stipite brevi, 2 cm. basi attenuato, summo 2 cm. lato, rufo-pallido, velutino, superne striato (in proximitate lamellarum), basi radicato, duro, cylindrico, strigoso. 192

   Hab. in terra ferruginosa Novæ-Caledoniæ. — A *L. vellereo* stipite obconico et radice elongata differt.

2. **Lentinus cordubensis** Speg. Mycet. argent. ser. II, 1902, p. 50. — Pileo pallide avellaneo, hemisphærico, 5-8 mm. diam., primo centro umbonatulo dein plano, postremo minute umbilicato, obsolete concentrice subsulcato, in juventute pallide avellaneo adpresse subpaleaceo-villoso, margine integro non sulcato; lamellis subconfertis antice acutis, postice adnato-sinuatis, albidis, aridis, 0,51 mm. lat., acie sæpius minute eximieque denticulatis; stipite erecto, gracili, farcto, pileo concolore, 20-30 mm. longo, 0,5 mm. cr., in sicco longitudinaliter ruguloso; sporis ovatis 5-6 × 2,5-3, apice obtusiusculis, basi inæquilateraliter rostellatis, levibus non vel 1-guttulatis, hyalinis; basidiis clavulatis, obtusis, 25-30 × 5-7; cystidiis non visis. 193

   Hab. ad ramenta inter folia dejecta in silvulis prope Cordoba in Argentina (T. Stuckert). — Species habitu *Marasmiis* paraffinis sed pileo stipiteque villosis lamellisque acie denticulatis inter *Lentinos* potius recensenda

3. **Lentinus clitocyboides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 45. — Syll XVI, p. 1113 (nomen) — Pileo carnoso-lento, infundibuliformi, brunneo cinerescente, subsquamuloso, centro pallidiori 4-6 cm. diam.; stipite farcto, tereti, concolori, tomentosulo, 3-5 cm. longo, 0,5-1 cm. cr.; lamellis decurrentibus, confertis, angustis, lineolatis, ca. 1 mm. latis, pallide cinereis v. flavidulis acie integris; sporis subglobosis 5-6 μ diam. hyalinis. 194

   Hab. ad cortices putres, Kamerun Afr.

4. **Lentinus americanus** Peck in the Torr. Bot. Club, 1902, p. 72. — — Pileo exili, convexo, fere plano, centro depresso vel subinfundibuliformi, glabro, irregulari et margine lobato, pallido, 2-2,5 cm. lato; lamellis subadnatis, margine dentato-laceratis, subdecurrentibus, albidis; stipite brevi, 1-1,5 cm. longo, 2-4 mm. crasso, sub- 195

æquali, solido, brunneo v. rufobrunneo strigoso, basi villoso; sporis late ellipticis vel subglobosis, 6 × 5–6.

Hab. sparse vel gregarie, ad terram, Volmer, Idaho, Amer. bor. (L. F. Henderson).

5. **Lentinus eradicatus** Pat. Champ. des colon. franc., in Bull. du jardin. colon. 1901, n. 2, p. 264. — Pileo rubro, tenui, coriaceo-membranaceo, infundibuliformi, nec striato nec zonato, superne velutino, margine integro et reflexo; lamellis rufo-rubris, angustis, adnatis, integris, decurrentibus; stipite gracili, erecto, cylindraceo, velutino, rufo-pallido, superne et basi paullulum indurato, non radicato. 196

Hab. in truncis emortuis, Nova Caledonia. — Totus 25 cm. altus. Affinis *L. radicato* Cooke.

6. **Lentinus flavidus** Massee in Kew Bull. 1901, pag. 163. — Pileo cyathoideo, membranaceo-coriaceo, 5–8 cm. diam., albido-flavescenti, glabro, margine incurvo, striatulo; lamellis angustis, confertis, attenuato-decurrentibus, acie integris; stipite recto, densissime velutino-hispidulo, brunneo, 2 cm. longo, 1 cm. crasso, e sclerotio subgloboso 4–5 cm. diam., extus glabro, castaneo-fusco, intus albido enascenti; sporis ellipticis, 10 × 4. 197

Hab. in terra humosa, Old Calabar Africæ occident.

7. **Lentinus Araucariæ** Har. et Pat. Journ. de Bot. 1903, p. 11. — Pileo orbiculari, excentrico, profunde umbilicato, brunneo-castaneo, pruinoso, squamis distantibus erectis, crassis, substellato-pyramidatis, macula nigra insidentibus, margine incurvo pectinatim striato; stipite excentrico, lignoso, albido-rufescente, subæquali e basi effusa atra assurgente, glabriusculo, apicem versus annulo nigricante frustulatim fracto ornato; lamellis decurrentibus, distantibus, simplicibus, acie integra, pileo subconcoloribus. 198

Hab. ad truncos Araucariæ, Tendea, Nova Caledonia (Bernier). — Pileus 5–6 cm. lat.; stipes 2–4 cm. long., 6 mm. cr.; lamellæ 2 mm. latæ.

8. **Lentinus lamelliporus** Har. et Pat. Champ. rec. au Japon, in Bull. du Mus. d'hist. nat. 1902, n. 2, p. 130. — Lignicola, cæspitosus; stipite nullo v. brevissimo, crasso, excentrico, in pileum firmo-coriaceum dilatato, antice elongatum, postice multo breviorem, margine acuto, integro, subtus vix recurvato, sinuoso, superiori facie alba, roseola, glabra, levi, medio depressa, postice marginata; hymenio albo, in media parte inferiori in tubulos, favoloideos mutato, dissepimentis tenuibus integris leviterque denticulatis, in me- 199

dia superiori parte in lamellas e tubulis ortas expanso, antice attenuatas, brevioribus immixtis, 4-5 mm. latas, acie distincte denticulatas acutasque, verrucis emergentibus numerosissimis.

Hab. ad truncos, Tokyo Japoniæ (HARMAND).

9. **Lentinus cochlearis** (Pers.) Bres. Fungi polonici in Ann. Mycol. 1903, p. 69, *Lentinus suavissimus* Fr. Syn. Lent. p. 13, *Lentinus anisatus* P. Henn. in Sydow, Mycoth. March. n. 4702, *Agaricus cochlearis* Pers. Myc. Europ. III, p. 33, n. 36, *Panus cochlearis* Fr. Hym. Eur. p. 489. — Syll. V, p. 622. — Micheli Gen. pl. t. 65, f. 5-6. — Pileo carnoso-lento, dimidiato, subintegro vel integro, in dimidiatis subreniformi, spathulato vel ovato-subspathulato, in integris convexo-umbilicato demum cyathiformi vel infundibuliformi, margine primo involuto dein revoluto, hirtello vel pubescente, mox glabro, levi vel etiam radiato-striatulo, stramineo-lutescente, centro sæpe vel rarius ex integro fulvo, demum pallescente, 1-3 cm. lato; lamellis ex albido stramineis, postice anastomosantibus, acie fimbriato-denticulata, ætate subintegra; stipite solido variæ longitudinis, e pubescente glabrato, pallido, sæpe basi vel etiam ex integro fulvo, 5-15 mm. longo, 3-4 mm. crasso; carne alba, carnoso-lenta, odore grato, aniseo prædita; basidiis clavatis, 20-28 × 6-7; sporis hyalinis, subcylindraceis, uno latere subcompressis, 7-9 × 2-3.

Hab. ad ramos Salicis capreæ in Polonia. — Hujus speciei specimina vidi ex integro fulva, forma cum iconibus a cl. Micheli l. c. editis prorsus consona, ideoque de identitate vix dubito, quæ etiamsi colore diverso omnino specifice cum specie Henningsiana l. c., cujus specimina comparavi, conjungenda. Species friesiana huc quoque ducenda absque dubio, nam species hæc quoad formam et colorem valde variabilis etiam in speciminibus gregatim ad eundem ramum nascentibus (BRESADOLA l. c.).

PANUS Fr. — Syll. V p. 614, IX p. 76, XI p. 41, XIV p. 122.

1. **Panus stipticus** (Bull.) Fr. — Syll. V, p. 622. — var. **alba** Bresadola Fungi polonici, in Ann. Myc. 1903, pag. 69. — A forma typica differt colore ex integro candido, lamellæ tamen exsiccando cremeæ evadunt. Cetera omnia concordant. 200

Hab. ad truncos Betulæ albæ, in Polonia.

2. **Panus luteolus** Massee in Bot. Tidsskrift-Copenhagen 1902, vol. 24, pag. 215. — Sessilis, imbricatus; pileo fere membranaceo, lento, subreniformi, tomento flavo obducto, 3-5 cm. longo; lamellis an- 201

gustissimis, confertissimis, pallidis, acie acutis; sporis hyalinis 5 × 3.

Hab. in lignis emortuis prope Klong Prao, Siam Asiæ merid. — *Pano aureofulvo* Cooke affinis.

3. **Panus spathulatus** Massee in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 215. — Cæspitosus; pileo tenui, lento, pallido, suborbiculari seu reniformi, margine arcte involuto, albido, 3-5 cm. lato; lamellis confertissimis, angustissimis, acie integris, albidis; sporis hyalinis 4 × 2,5; stipite exacte laterali, elongato, cylindrico, fibroso-lignoso, pileo concolori, 4-6 cm. longo 202

Hab. ad terram prope Klong Son, Siam Asiæ merid.

4. **Panus michailowskojensis** (P. Henn.) Sacc. et D. Sacc. *Lentinus* P. Henn. in Hedw. 1904, p. 67. — Pileo membranaceo-coriaceo, subapode, conchiformi vel subflabellato, convexo, postice affixo, brunneolo, basi isabellino, hyalino granuloso, pilosulo, ad marginem radiato-striato, 0,5-1 cm. lato, 4-8 mm. longo; lamellis ad basim radiatis, membranaceo-coriaceis, inæquilongis, angustis, utrinque attenuatis, medio 1-1,5 mm. latis, pallide alutaceis, acie integris, acutis; basidiis clavatis 8-10 × 3 3,5; sporis subcylindraceis vel clavatis, obtusis, hyalinis, 3,5-4 × 1,5. 203

Hab. in ramis Alni incanæ, Michailowskoje, in ditione Mosquensi Rossiæ.

XEROTUS Fr. — Syll. V p. 630, IX p. 78, XI p. 41, XIV p. 123, XVI p. 67.

1. **Xerotus martinicensis** Pat. in Duss Enum. Champ. Guadel. 1903, p. 48. — Mesopus; pileo convexo, centro papillato, 1-2 cm. diam., subtenui, sicco, rigidulo, albo-brunneolo, ruguloso, pulverulento, ad centrum plicato-sulcato, margine acuto, integro; stipite solido, duro, gracili, 1-2 cm. long., 1-1,5 mm. cr, cylindrico, regulari, brunneo-rufo, breviter ruguloso-pubescente; basi vix incrassato; lamellis parcis (8-12) distantibus, rigidulis, brunneolis, crassiusculis, integris, acie obtusis circa stipitis apicem insertis, non decurrentibus, latis, intermixtis brevioribus, interdum venæformibus. 204

Hab. ad ramos putres Averrhoæ Bilimbi in Guadalupa et Martinica (Duss). — Habitus marasmiodeus.

2. **Xerotus changensis** Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 211. — Pileo coriaceo, rigido, tenui, sessili, dimidiato, opaco, atro, pulverulento, radiatim sulcato, 2-3 cm. lato, margine initio integro, dein lobato, subtus rufo, plicis radiantibus, distantibus, integris. 205

Hab. ad truncos Siam Asiæ merid.

3. **Xerotus echinosporus** P. Henn. F. Amaz. I in Hedw. 1904, p. 182. 206
— Pileo coriaceo, spathulato-erecto, v. anguste flabellato, substipitato, alutaceo-brunneo, levi, pruinoso, 1-1,5 cm. longo, 3-5 mm. lato, basi albido-byssino; lamellis coriaceis, decurrentibus, distantibus, dichotomis, acie obtusa crassis, alutaceis; basidiis clavatis, 20-25 × 6-8; sporis subglobosis 5-6 μ. cr., aculeato-verrucosis, hyalino-flavidulis.

Hab. ad terram detriticam, Rio Madeira pr. Marmellos, Amazonia (Ule). — Forma spathulata sporisque verrucosis pradistincta species.

LENZITES Fr. — Syll. V p. 637, IX p. 78, XI p. 42, XVI, p. 67.

1. **Lenzites betulina** (L.) Fr. — Syll. V, p. 638. — var. **radiata** Peck 207
in Rep. of the State Botanist, 1901, p. 965. — Pileo tenui, 2 mm. crasso, 3,5-7,5 cm. lato, coriaceo, velutino-piloso, anguste plurizonato, radiato-striato, brunneo; lamellis inæqualibus, raro furcatis, non anastomosantibus, griseo-albidis vel brunneolis.

Hab. in truncis Fagi, Hague, Amer. bor.

2 **Lenzites Gussonei** Scalia Fungi Sicilia orient. ser. I, 1900, p. 21. 208
— Pileo suberoso, explanato v. undulato, ochroleuco, squamulis adpressis, melleis obsito; lamellis concoloribus undulatis, versus stipitem dichotomis anastomosantibus, reticulum tenuem, fuscum, ostendentibus; stipite crasso, brevi, alutaceo-fusco, farcto intus stuposo.

Hab. in truncis Cytharexyli subserrati et Yuccæ aloifoliæ, Catania, Sicilia, in horto botanico.

3. **Lenzites sibirica** Karst. Fungi nov. Loennb. 1904, p. 3 (Finska 209
Vetensk. Soc.). — Pileo coriaceo, rigido, dimidiato, plano postice gibboso, cervino, fibrillis innatis radiantibus, teneris obtecto, obscurius zonato, intus pallescente, margine acutiusculo, inæquali, concolore, 3-5, cm. lato; lamellis crassiusculis, inæqualibus, poroso-anastomosantibus, sordide pallidis, demum fuscescentibus.

Hab. ad truncum arborum frondosarum in regione Baicalensi. Listoinitschnoje Sibiriæ Aug. 1902 (O. A. F. Lönnbohm).

Sect. 2. Rhodosporæ.

VOLVARIA Fr. — Syll. V p. 656, IX p. 82, XI p. 43, XIV p. 124, XVI, p. 69.

1. **Volvaria submyochroa** Clem. in Bot. Surv. Nebr. 1901, p. 10. — 210

Pileo subcarnoso, convexo, subplano, parce umbonato, lucenti, in umbone fibrillis sericeis dense vestito, margine substriato, 3-4 cm. crasso, avellaneo-cinereo; stipite carnoso, æquali, solido, albo, lucenti, apice farinoso, 3-4 cm. longo, 5 mm. crasso; volva minuta, hirsuta 2-3-fida, concolore; lamellis liberis, remotis, subconfertis, ventricosis, initio carneis dein isabellinis; sporis ellipsoideis, 1-guttulatis, levibus, 6-7 × 4.

Hab. ad terram humidam, University Campus, Lincoln Americæ borealis.

2. **Volvaria concinna** Clem. in Bot. Surv. Nebr. 1901, p. 9. — Pileo 211
submembranaceo, expanso, subumbonato, levi, pallide avellaneo 0,5-1,5 cm. diam.; stipite gracillimo, concolore, 0,5-1,5 cm. 1-2 mm.; volva minuta valde adpressa; lamellis liberis, roseis; sporis ovato-ellipticis, granulosis vel guttatis, levibus, roseis, 8-11 × 5-7; cystidiis nullis.

Hab. ad terram ad flumen Humboldt et Marysville, Kansas, Amer. bor.

3. **Volvaria liliputiana** P. Henn. Fungi Indiæ or. II, in Hedw. 1903, 212
p. 333. — Parvula; pileo convexo campanulato medio depresso obtuse umbonato, albido, subvelutino, margine obsolete striatulo, 0,5-1 cm. diam.; stipite fistuloso, gracili, levi, glabro, albido 1-1,5 cm. longo, vix 1 mm. cr., volva membranacea, lacerato-fissa; lamellis liberis, subconfertis, flavido-roseis; sporis ovoideo-ellipsoideis, 1-grosse guttulatis, levibus, 4-5 × 4, basi apiculatis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

ANNULARIA Schulz. — Syll. V p. 668, IX p. 82, XI p. 43, XIV p. 125.

1. **Annularia baicalensis** Karst. Fung. novi Loennb. 1904, pag. 2 213
(Finska Vetensk. Soc.). — Pileo carnoso, sat crasso, convexo, obtuso, glabro, levi, alutaceo (in statu sicco), circiter 7 cm. lato; stipite solido, æquali, glabro, concolore, circiter 7 cm. longo et 2 cm. crasso; annulo membranaceo; lamellis liberis, confertissimis, angustissimis, æqualibus, carneis; cystidiis mellis; basidiis clavulatis 20 × 4.

Hab. in regione Baicalensi Sibiriæ (O. A. F. Lönnbohm).

PLUTEUS Fr. — Syll. V p. 665, IX p. 83, XI p. 44, XIV, p. 125, XVI p. 72.

1. **Pluteus cervinus** (Schäff.) Quél. Syll. V, p. 665. — var. **griseo-vi-** 214

ridis P. Henn. Fung. S. Paul III Hedw. 1904, p. 204. — Pileo carnoso, convexo, explanato, centro obtuso, levi, glabro, subglutinoso, margine striatulo, griseo-viridi, 5-7 cm. diam ; stipite solido, cylindraceo, pallido, levi, glabro, 4-7 cm. long., 3-5 mm. cr. basi incrassato; lamellis liberis confertis, ventricosis, 3-4 mm. latis; flavido-incarnatis; sporis ellipsoideis, 1-guttulatis, carneis, 4-5 × 4; cystidiis lageniformibus, apice 2- v. 3-dentato-hamatis, 40-60 × 15-20.

Hab. ad caudices, Serra de Cantareira, S. Paul Brasiliæ. — Præcipue colore pilei et sporis paullo minoribus a typo recedit.

2. **Pluteus flavo-fuligineus** Atkinson in Journ. of Mycol. 1902, p. 117. 215
— Sparsus, 5–7 cm. altus; pileo ovoideo, convexo, interdum subumbonato, initio intense flavo-fuligineo, minute tomentosulo, dein pallidiori et centrum versus plus minusve fuligineo radiato, margine non striato, 4-5 cm. lato; carne alba; lamellis liberis, utrinque rotundatis, 3–5 mm. latis, non stipatis, intense carneis; basidiis clavatis, 4-sporis, 30–35 × 6–7; sporis ovoideis, levibus carneis, 5–7 × 4–6; cystidiis numerosis, fusoideis, apice obtusis 80-100 × 12-20 hyalinis; stipite pallide carneo, levi, solido, dein fistuloso, 4–6 mm. crasso.

Hab. in lignis putridis, in silvis Coy Glen, Ithaca N. Y. Americæ borealis.

3. **Pluteus roseipes** Höhnel Fragmente zur Mykologie, 1903, p. 24. 216
— Pileo carnosulo, margine submembranaceo, subumbonato, explanato ad 5–6 cm. lato, fuliginoso, centro obscuriore, subtiliter sericeo et velutino flocculoso, margine leviter striato; lamellis attingenti-liberis, confertissimis, roseis, 5 mm. latis, acie subtiliter albo-fimbriata; stipite solido, tereti, intus extusque roseo, levissimo, æquali, basi leviter incrassato; sporis globosis, levibus, 6–8 × 7, griseo-incarnatis; cystidiis numerosis, fasciculatis, clavatis, obtusis vel apiculatis, usque 60 × 16, membrana subtili, solum versus apicem incrassata.

Hab. in pratis subalpinis prope Puchberg ad montem Schneeberg Austriæ inferioris.

4. **Pluteus floccifer** Boud. in Bull. Soc. Myc. de France 1902, n. 2, 217
tab. 6, fig. 2. — Pileo convexo-campanulato, 3–4,5 cm. diam., eximio hygrophano, parum carnoso, brunneo, siccitate fulvo, ad marginem longe striato, undique floccis acutis filamentosis, albis, subtiliter consperso, toto 10–12 cm. alto; lamellis liberis, latiusculis, dein albidis, dein rufo-ferrugineis; stipite elongato, sericeo, striato,

plus minusve torto, sed colore pallide rufescente leviter tincto, ad basim paululum incrassato; sporis ovatis, guttulato-granulosis, sub lente pallide ferrugineis, magna copia rufo-fulvis.

Hab. ad terram graminosam, in montibus Juranis Galliæ.

5. **Pluteus Termitum** P. Henn. F. Amaz. I in Hedw. 1904, p. 183. 218
Pileo carnosulo, campanulato, vertice umbonato-obtuso, brunneolo, radiatim substriato, albido, 3-4 cm. diam.; stipite fistuloso tereti, substriato, levi, basi interdum curvulo, incrassato, pallide brunneolo, 4-5 cm. longo, 2-3 mm. cr.; lamellis liberis, confertis, ventricosis, 3 mm. latis, pallidis dein flavidis; sporis ellipsoideo-fusoideis, utrinque acutiusculis, 1-2-guttulatis, episporio pallide incarnato, levi, 7-10 × 4-5.

Hab. ad excavationes Termitum, Fortaleza Amazoniæ. — Nonnullis notis ad *Lepiotas* nutat.

6. **Pluteus bulbipes** P. Henn. in Engl. Bot. Jahrb. 1901, p. 54. — 219
Syll. XVI, p. 1113 (nomen). — Pileo submembranaceo, carnosulo, convexo obtuso, subsquamuloso granuloso, radiato-striato, brunneo-olivaceo 3-4 cm. diam.; stipite subfarcto, tereti, striatulo, pallide brunneo, 4-6 cm. longo, 3-4 mm. crasso, basi bulbilloso, 6-8 mm. incrassato; lamellis sinuoso-adnatis 2-2,5 mm. latis, confertis, albidis dein flavo-carnescentibus; sporis subglobosis, intus granulatis, 4-5 diam. episporio levi, flavo-carnescente.

Hab. ad terram, Kamerun Afr.

7. **Pluteus citrino-carnescens** P. Henn. in Engl. Bot. Jahrb. 1901, 220
p. 54 — Syll. XVI, p. 1113 (nomen). — Pileo membranaceo carnosulo, convexo expanso, radiato-striato, citrino 2,5-5 cm. diam., centro umbilicato v. subpapilloso, venoso-rugoso fuscidulo; stipite subfarcto, tereti, levi, glabro vel striatulo, incarnato, 2-5 mm. longo, 2-4 mm. crasso; lamellis sinuoso-adnatis v. subliberis, confertis, 3-5 mm. latis, roseo-carneis; cystidiis subulatis ca. 25-30 × 8-9; basidiis clavatis 18-24 × 5-7; sporis subglobosis v. ellipsoideis 1-grosse guttulatis, levibus, flavo-carnescentibus, 4,5-6 × 4-5.

Hab. ad terram, Kamerun Afr.

ENTOLOMA Fr. — Syll. V p. 679, IX p. 83, XI, p. 44, XIV p. 126, XVI p. 76.

1. **Entoloma clypeatum** (L.) — Quél. — Syll. V, p. 394. — var. Barthelii Star. in Verhandl. d. bot. Ver. Brandenb. 1903, p. 91. — 221
A typo imprimis differt sporis angulosis, 11-14 × 8-11, 1-guttatis.

Hab. ad terram Fuhnehang, Anhalt Germaniæ.

2. **Entoloma graveolens** Peck Rep. of the State bot. 1899, p. 844, tab. II, fig. 1-7. — Pileo 5-10 cm. lato, firmo subfragili, convexo, sæpe irregulari, glabro, margine flocculoso, albido, interdum violaceo tincto; carne alba; sapore odoreque ingrato; lamellis angustis, stipatis, adnatis, griseo-albis pallide salmoneis; stipite 3,5-10 cm. longo, 16-24 mm. crasso, firmo, solido, basi bulboso tomentoso, superne lanuginoso, albo; sporis pallide roseis, ellipticis 6-7,5 × 3,5 sæpe 1-nucleatis. 222

Hab. in silvis Meadowdale, Amer. bor.

3. **Entoloma Farrahi** Mass. et Cross. in the Naturalist 1904, pag. 1, tab. I, fig. 1-4. Pileo cylindrico-ovato dein campanulato, subrepando, umbonato, levi, sericeo-fibrilloso, sicco, atro-cæruleo, circa marginem pallidiore, 6-8 cm. diam.; lamellis latis, sinuato-adnexis, ventricosis, subdistantibus, carneis; stipite solido, ventricoso, glabro, pileo concolori, basi albo, 5-7 cm. longo, 1,5-2 cm. crasso; sporis oblongo-ellipticis, levibus, carneis 10 × 4,5-5; cystidiis cuspidatis, ventricosis, 50-60 × 12-15. 223

Hab. in graminosis Helmsley Britanniæ (J. Farrah).

4. **Entoloma variabile** Peck Rep. of the State bot. 1900, pag. 145, tab. *F*, fig. 17-27. — Pileo conico, ovato vel subcampanulato, umbonato interdum subdepresso vel apice subumbilicato, parce fibrilloso, pallide luteo dein rufo-brunneo, margine luteolo, 16-50 mm. lato; lamellis modice stipatis, ascendentibus, acie erosis, antice latis, albidis, dein pallide roseis; stipite filiformi, æquali, cavo, subfibrilloso-striato albido vel pallido, basi tomentoso 7,5-12,5 cm. longo, 2-4 mm. crasso; sporis angulosis, 1-nucleatis, 10-12,5 μ. diam. 224

Hab. in Sphagno, Floodwood, Amer. bor.

5. **Entoloma nigricans** Peck in the Torr. Bot. Club. 1902, p. 72. — Pileo exili, convexo, irregulariter expanso, centro depresso, sericeo-fibrilloso, intense griseo vel nigrescenti, cuticula radiato-erumpenti, inodoro, 2,5-4 cm. diam.; stipite æquali sericeo-fibrilloso, initio firmo, dein cavo, 2,5-5 cm. longo, 4-8 mm. crasso, albo et nigro zonato, interdum superne furfuraceo; lamellis latis, subdistantibus, sinuatis, adnatis, rufo-roseis; sporis roseo-carneis, angulosis, uninucleatis 8-12 μ. diam. 225

Hab. ad terram in silvis prope St. Louis, Mo, Amer. bor. (N. M. Glatfelter).

6. **Entoloma Peckianum** Burt in Peck Rep. of the State Bot. 1900, p. 146, Tab. *F*, fig. 9-16. — Pileo tenui 16-30 mm. diam, co- 226

nico dein convexo vel subcampanulato, subhygrophano, intense brunneo, umbonato, margine obscure rugoso, minute fibrilloso; lamellis adnatis, stipatis, ascendentibus, latis, abrupte rotundatis albidis, dein salmoneis; stipite carnoso, filiformi, æquali, cavo, fibrilloso-striato, pallide brunneo, sæpe basi albicante, intus albido 5-10 cm. longo, 2-4 mm. crasso; sporis angulosis 1-nucleatis 10-12,5 ≈ 7,5-10.

Hab. in Sphagno, Floodwood, Amer. bor. — Habitus *Nolaneæ infulæ* Fr.

7. **Entoloma strictius** Peck — Syll. V, pag. 698. — var. **irregulare** Peck Rep. of the State bot. 1899, p. 856. — Pileo exili, fragili, campanulato convexo vel fere plano, umbonato vel non, sæpe irregulari, intense brunneo et indistincte striatulo, in sicco griseo-brunneo; lamellis initio griseis, maturitate pallide roseis; stipite breviusculo, sæpe irregulari, sericeo-fibrilloso, plano vel cavo, lucenti, albo. 227

Hab. in graminosis, Albany, Amer. bor.

8. **Entoloma luteum** Peck Rep. of the State bot. 1900, p. 146, t. *F*, fig. 1-8. — Pileo 12-20 mm. lato, conico vel subcampanulato, obtuso, apice squamuloso, luteo vel fuligineo-luteo dein sæpe griseo; lamellis ascendentibus, modice stipatis, latis, albidis dein pallide salmoneis; stipite filiformi, æquali, cavo, subfibrilloso-striato, pileo concolori, basi mycelio albo obvoluto, 7,5-10 cm. longo, 2-4 mm. crasso; sporis angulosis, subquadratis, 10-12 μ. diam. 228

Hab. in silvis, Floodwood, Amer. bor.

CLITOPILUS Fr. — Syll. V p. 698, IX p. 85, XI p. 45, XIV p. 128, XVI p. 77.

1. **Clitopilus noveboracensis** Peck — Syll. V, p. 702. — var. **subviolaceus** Peck Rep. of the State bot. 1900, p. 165. — Pileo tenui, in statu juvenili subplano dein centro depresso, pallide griseo violaceo, sæpe obscure zonato vel concentrice maculato, margine valde involuto; carne albida, sapore farinaceo; lamellis decurrentibus, pallidis dein cremeo-luteolis; stipite pallido, basi albido-tomentoso, interdum excentrico. 229

Hab. in silvis, inter folia dejecta Floodwood, Amer. bor. — Var. **umbilicatus** Peck l. c.: pileo subplano, umbilicato, albo vel albido; carne alba; sapore aquoso; stipite brevi, alb tomentoso vel piloso, rivuloso vel concentrice rimoso. In silvis, Floodwood, Amer. bor.

2. **Clitopilus sphærosporus** Peck Bull. Torr. Bot. Cl. 1984, p. 179. 230
— Pileo carnoso sed tenui, subplano, margine involuto, v. curvo, umbonato v. leviter centro depresso, sicco, minute tomentoso-pubescenti, atro-griseo v. nigrescenti-brunneo; carne alba; lamellis tenuibus, angustis, confertis, inæqualibus, leviter decurrentibus, albidis, roseo-tinctis; stipite æquali v. sursum leviter tenuato, solido, firmo, pileo concolori, basi tomento mycelico albo vestito; sporis globosis, 1-nucleatis, 5–6 μ. diam., roseis.

Hab. inter folia dejecta pr. St. Louis Mo. Amer. bor. (N. M. Glatfelter). — Pileus 1–2,5 cm. lat.; stipes 2-4 cm. long., 2–4 mm. cr.

LEPTONIA Fr. — Syll. V p. 706, IX p. 87, XI p. 46, XIV p. 128, XVI p. 78.

1. **Leptonia bicolor** Massee Kew Bull. 1901, p. 154. — Pileo sub- 231
membranaceo, conico, umbilicato, levi, glaberrimo, pallide roseo, 3-5 cm. alto; lamellis confertis adnexis, angustis, albidis dein incarnatis; stipite fistuloso, sursum attenuato, glabro, nitente, pileo concolori, 8-10 cm. longo, 6-8 mm. crasso; sporis oblongis, nodulosis, incarnatis, 10-11 × 7

Hab. ad terram, Singapore, Malacca (Ridley).

2. **Leptonia tricolor** Massee Kew Bull. 1901, pag. 154. — Pileo sub- 232
membranaceo e convexo plano-depresso, virgato, lilacino, 2-3 cm. lato, margine striatulo incurvo; lamellis annexis, angustis, subdistantibus incarnatis, acie serrulatis; stipite farcto, sursum attenuato, albido, glabro, 5–6 cm. longo, 6-7 mm. crasso; sporis subglobosis, apiculatis, 8-9 μ. diam.

Hab. ad terram, Penang, Malacca (Ridley).

3. **Leptonia seticeps** Atkinson in Journ. of Mycol. 1902, p. 116 — 233
Pileo convexo expanso, margine interdum incurvo, brunneo, centro intense concolori, substriatulo, levi vel minute granuloso, nigro-punctulato, 1-3 cm. lato; carne albida tenui; lamellis subadnatis, circ. 4 mm. latis, ellipsoideis, acie erosis, pallide carneis; basidiis cylindraceis, 4-sporis, 18-25 × 6-8; cystidiis nullis vel raris in superficie lamellarum, in acie numerosis, clavato-ellipticis, hyalinis, 50-60 × 10-15; sporis ovoideis v. subglobosis, levibus, carneis, sub lente pallidis; stipite levi, inferne albido, superne griseo pallidiori, fibroso striato, æquali vel basi incrassatulo, erecto vel curvulo, solido, 1–2 cm. alto, 2–3 mm. crasso.

Hab. in ligno putri ad terram in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

4. **Leptonia hortensis** Peck in Rep. of the State botanist 1902, p. 26. 234
— Pileo tenui, convexo, umbilicato, hygrophano, rufo-brunneo, striatulo, in sicco pallido, sericeo, 10-20 mm. lato; lamellis tenuibus, stipatis, adnatis, initio albidis dein maturitate roseis; stipite brevi, 16-24 mm. longo, 2 mm. crasso, tenui, glabro, carne pileo concolori; sporis angulosis, 1-nucleatis, 7,5-10 × 7,5.

Hab. ad terram, Menands, Albany co., Amer. bor.

5. **Leptonia Kummeriana** P. Henn. Fungi Afr. orient. II, in Bd. 235
Jahrb. XXVII, p. 36. — Pileo membranaceo, carnosulo, campanulato-umbonato, subobtuso, squamis granulosis atrocyaneis, verruculoso, violaceo, 12-15 mm. diam.; stipite cartilagineo, fistuloso, gracili, granuloso-verrucoso, atrocyaneo, 3-4 cm. longo, 1 mm. cr.; lamellis adnexis, subdistantibus, inæquilongis, ventricosis, utrinque attenuatis, ca. 1,5 mm. latis, pallidis, dein subcarnescentibus, acie integris; basidiis clavatis, intus flavo-guttulatis, 16-24 × 6-8; sporis 4-5 angulatis, basi apiculatis, flavo-carneis, grosse 1-guttulatis, 8-10 × 6-8.

Hab. ad terram, Usambra Afr. orient. (Kummer).

NOLANEA Fr. — Syll. V p. 716, IX p. 88, XI p. 47, XIV p. 129, XVI p. 80.

1. **Nolanea nodospora** Atkinson in Journ. of Mycol. 1902, p. 114. — 236
Totus fungus intense brunneus, 6-7 cm. altus; pileo campanulato squamuloso, floccis squarrosis; carne brunnea, externe compacta, intus floccosa; lamellis ascendentibus, ventricosis, postremo adnatis; basidiis 4-sporis, 30-35 × 8-10; sporis oblongis, noduloso-oblongis, 12-18 × 6-9 roseolis, in charta carneis; cystidiis in acie lamellarum, ventricoso-lanceolatis; stipite superne pallido, fistuloso 1,5-2,5 mm. crasso, basi subincrassato.

Hab. ad terram, in silvis, Six Mile Creek, Ithaca, Amer. bor. 237

2. **Nolanea fibrillosa** Peck Rep. of the State bot. 1900, p. 147, t. I, fig. 12-19. — Pileo tenui, fragili, campanulato vel convexo, hygrophano, brunneo et striatulo, in sicco pallido, lucenti, fibrilloso 12-20 mm. lato; lamellis adscendentibus, stipatis, acie constrictis, adnatis, interdum ventricosis, albidis vel pallidis dein roseis; stipite filiformi, glabro, cavo, pallido, 5-7,5 cm. longo, 1-2 mm. crasso; sporis angulosis, 12,5-15 × 7,5-10, uninucleatis.

Hab. ad terram in silvis, Floodwood, Amer. bor.

3. **Nolanea rhodospora** (Broome et W. G. Sm.) Sacc. et D. Sacc., 238
Agaricus rhodosporus Broome et Sm. Journ of Bot. 1903, p 385.
— Pileo convexo, fusco-fibrilloso v. rufescenti-piloso; stipite subbulboso, albo; lamellis sinuatis v. liberis, salmonicoloribus v. roseis, 25-31 × 1,5 mm.; sporis.... non descriptis.

Hab. ad terram et fragmenta lignea in calidariis in Britannia. — Affinis dicitur *Nol. rubidæ.*

ECCILIA Fr. — Syll V p. 729, IX p. 88, XIV p. 129, XVI p. 80.

1. **Eccilia mordax** Atkinson in Journ. of Mycol. 1902. pag. 113. — 239
Sæpe gregaria, 5-7 cm. alta; pileo convexo, umbilicato, margine revoluto, levi, rufo-brunneo vel pallide brunneo, hygrophano, viscido, raro radialiter rimoso, 2-5 cm. lato; carne albido-isabellina; lamellis carne concoloribus, adnatis vel subdecurrentibus, non stipatis: basidiis clavatis, 25-30 × 6-8, 4-sporis; cystidiis nullis; sporis ovalibus, 6-7 × 4-5, pallide roseis; cellulis lamellarum, 30-60 × 6-10; stipite pileo concolori, cartilagineo, fistuloso, levi, sæpe compresso. 3-5 mm. crasso; sapore subnullo, sed gulæ valde acri.

Hab. ad terram in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

2 **Eccilia rhodocylicioides** Atkinson in Journ. of Mycol. 1902, p. 113. 240
— Sparsa vel 2-3-congesta, 3-5 cm. alta; pileo 5-12 mm lato, plumbeo-griseo, convexo, umbilicato, centro minute floccoso-squarroso, margine substriatulo; lamellis pallide concoloribus, arcuatis, distantibus, decurrentibus, acie, ob cystidia albis, setulosis; basidiis clavato-cylindraceis, 4-sporis, 30 × 10-12; sporis subquadrangularibus, 8-10 μ. diam.; stipite cartilagineo, cavo, superne pallido, pileo concolori, 1-2 mm. crasso

Hab. in silvis Mc-Gowan's, Ithaca, N. Y. Amer. bor.

3. **Eccilia pentagonospora** Atkinson in Journ of Mycol. 1902, p. 113 241
— Sparsa, 2-3 cm. alta; pileo plumbeo-griseo, 0.5-1.5 cm. lato, umbilicato vel infundibuliformi, tenui, fibroso-striato, levi vel in superficie minute rugoso; lamellis roseis, 2-4 mm. latis, non stipatis, decurrentibus, ascendentibus; basidiis clavatis, 25-30 × 8-10, 4-sporis; sterigmatibus conicis, base incrassatulis; sporis subquadratis, prominenti 4-5-angulosis, 6-10 μ. diam, roseis; cystidiis nullis; stipite cylindrico, solido, æquali, griseo-plumbeo, basi albido tomentoso, carne albida, 1-2 mm crasso.

Hab. ad terram, Stewart Ave., Ithaca N Y. Amer. bor.

4. **Eccilia sphagnophila** Peck Rep. of the State bot. 1900, pag. 147, 242

tab. I, fig. 20-23. — Pileo hemisphærico vel umbonato-turbinato, glabro, margine striato, intense brunneo, 8-12 mm. lato; lamellis latis, distantibus, decurrentibus, albidis dein subroseis; stipite filiformi, 3,5-5 cm. longo, 1,5-2 mm. crasso, glabro, pileo concolori; sporis angulosis, 7,5-12,5 × 6-7,5.

Hab. in paludosis intra Sphagna, Floodwood, Amer. bor.

5. **Eccilia Henningsii** (Star.) Sacc. et D. Sacc., *Agaricus* (Eccilia) *Henningsii* Star. Verhandl. Bot. Ver. Prov. Brandenbg. XIV, 1903, p. 90. — Pileo carnosulo, primo umbilicato, usque ad 4 cm. diam., fusco-brunneo cinerescente, margine revoluto; stipite fistuloso, cartilagineo, concolori, basi villoso, haud punctulato, usque ad 5 cm. longo; lamellis incarnatis, cinereo-maculatis, paullum decurrentibus, acie subdenticulata, haud atra; sporis 8-12 × 7-10. 243

Hab. ad terram inter gramina, Grosskühnauer Park Dessau Germaniæ. — *Ecc. atridi* et *E. griseo rubellæ* affinis.

CLAUDOPUS W. Sm. — Syll. V p 733, IX p. 89, XI p. 48, XIV p. 130, XVI p. 82.

1. **Claudopus argentinensis** Speg. Myc. Arg. ser. I. in Ann. Soc. Cient. Argent. 1899, pag. 264. — Pileo irregulariter orbiculari, 8-9 cm. diam. et leniter inæquilaterali, horizontali convexo, centro late obtuseque umbonato, margine incurvulo, integro vel vix sinuoso-repandulo, cute tenui, sæpius radiatim minute fibrilloso-rimosa, sordide argentea v. subcinerea, in vivo subviscosa, in sicco subsericea vestito; carne candida immutabili, in umbone flocculoso-compactiuscula super lamellas tenuissima vix evoluta, cum illa stipitis continua; lamellis segmentiformibus, tenuiusculis, 10-12 mm. lat., membranaceis, confertiusculis, polymacriis, pro ratione latissimis, antice attenuato-rotundatis, postice abrupte subtruncato-rotundatis, a stipite remotis, primo albis, dein roseis, postremo pallide carneis; stipite laterali adscendenti-incurvo, tereti 7-8 cm. longo, 6-7 mm. cr., intus farcto albo, extus albo v. subpallescente, sæpius plus minusve obsoleteque fibrilloso-reticulato v. fibrilloso-striato; sporis ovatis, inæquilateralibus, 8 × 4, levibus. 244

Hab. ad truncos emortuos putrescentes Eucalypti globuli La Plata Argentinæ.

2. **Claudopus byssisedoides** P. Henn. F Amaz. I in Hedw. 1904, p. 183. — Pileo carnosulo, subresupinato, basi affixo v. substipitato, flabelliformi v. reniformi, superne pallido, pruinoso, levi, 3-7 mm. longo latoque; stipite laterali, brevissimo, curvato, basi ef- 245

fuso albido-byssino; lamellis decurrentibus, confertis, inæquilongis, ventricosis, 0,5 mm. lat., flavido-incarnescentibus, acie integris; basidiis clavatis; sporis ovoideis v. ellipsoideis, 1-guttulatis, pallide incarnatis, 4-6 × 4-5.

Hab. in petiolis putrescentibus Palmarum, Rio Juruá, Juruá-Miry, Amazonia (Ule). — Præcipue sporis regularibus ab affinis *Cl. byssisedo* differt.

Sect. 3. Ochrosporæ.

PHOLIOTA Fr. — Syll. V p. 736, IX p. 90, XI p. 48, XIV p. 131, XVI p. 83.

1. **Pholiota grandis** Rea Trans. Brit. Myc. Soc. 1903, pag. 37. — 246
Pileo convexo dein expanso et late gibboso, sicco, 23-30 cm. lato, fulvo, squamulis innatis saturatius fulvis tecto; carne læte flava, centro 5 cm. crassa; stipite 25-30 × 6-7 cm., firmo, fusoideo, supra annulum profunde stricto, infra squamuloso, fulvescente; annulo distanti, fugaci; stipitis carne ferruginea, apice flavida, centro scissili; lamellis latissimis, 1,5-2 cm. lat., antice attenuatis, postice sinuato-decurrentibus, pallidis dein fuscis, sat confertis; sporis oblongis, 6 × 3, fuscis.

Hab. cæspitosa ad basin Fraxini, Worcester et Exeter Britanniæ. — Odor et sapor grati. — Species inter *Ph. squarrosam* et *Ph. spectabilem* media.

2. **Pholiota Golliani** P. Henn Fungi Indiæ or II, in Hedw. 1901, 247
p. 333. — Magna, carnosa, crassa; pileo convexo explanato, obtuso-rotundato, levi, glabro, brunneo, margine integro, 3-16 cm. diam.; stipite farcto, teroti, æquali, crasso, interdum curvulo, albido subnitenti, sparse brunneolo-furfuraceo, usque ad 16 cm. longo, 3 cm. crasso, annulo membranaceo-floccoso, pallido, fugaci; lamellis sinuoso-adnatis, confertis, lanceolatis, medio usque ad 5 mm. latis, utrinque attenuatis, primo stramineis dein subochraceis, acie integris; sporis ellipsoideis, utrinque rotundatis, 1-2 guttulatis, pallide flavis, levibus, 10-13 × 6-8; carne pallida, firma.

Hab. in trunco Tamarindi indici, Saharanpur-Garden Indiæ orient.

3. **Pholiota fulvo-squamosa** Peck, Bull. Torr. Bot. Cl. 1903, p. 95. — 248
Pileo carnoso, sat tenui, convexo, demum subplano, sicco, squamis adpressis copiosis, fulvo-brunneolis consperso, concentrice fatiscen-

tibus; carne alba, cæsa brunneola, sapore et odore raphani; lamellis angustis, confertis, introrsum tenuatis et collario angusto connexis, albidis dein rubido-cinnamomeis; stipite æquali, rigido, farcto v. cavo, deorsum squamis erectis subfloccosis, fulvis squarroso, apice glabro et infra annulum amplum persistentem subglabro; annulo supra albido, infra fulvo-floccoso-squamuloso; sporis ellipsoideis, 8 × 4-5.

Hab. ad basin Quercuum, Michigan Amer. bor. (B. O. Longyear). — Pileus 6-12 cm. lat.; stipes 5-8 cm. long., 8-10 mm. crass.

4. **Pholiota ventricosa** Earle in New York Bot. Gard. 1902, p. 341. 249
— Gregaria vel cæspitosa; pileo 7-8 cm. diam., convexo, obtuso, rufo-brunneo, disco sæpe concavo, minute fibrilloso vel subglabro, luteolo, margine æquali, subappendiculato, floccis incrustato; lamellis subsinuosis, adnatis, latiusculis vel subventricosis, margine integris, initio pallide brunneis dein cinnamomeis; sporis ferrugineis, ovatis vel subellipticis, 8-9 × 4-5. volva luteo-pallida v. pallide brunnea, exili, fibrillosa; annulo persistenti, exili, in summitate stipitis posito; stipite firmo basi tomentoso ventricosoque, 14-18 × 2-3 cm., brunneolo, fibrilloso vel subglabro, in proximitate annuli dense albo-tomentoso; carne pallide lutea, immutabili, sapore odoreque nullis.

Hab. in pinetis, Standfort University Californiæ.

5. **Pholiota præcox** — Syll. V, p. 738. — Var. **silvestris** Peck in 250
Harrim. Alaska Exped. Crypt. p. 46. — A typo differt pileo toto, nec tantum centro, rufo-flavido v. rubiginoso.

Hab. ad terram Yakutat Bay Alaska (Trelease).

6. **Pholiota indica** Massee in Kew Bull. 1901, p 151. — Pileo car- 251
noso, e conico-campanulato expanso, sicco, squamis concentricis adnatis ornato, brunneolo, marginem versus albido, 3-8 cm. lato; lamellis adnexis, latis, subdistantibus, umbrinis; sporis subglobosis, umbrinis, 9-10 × 7-8; stipite farcto, æquali, basi subincrassato, albo, usque ad annulum remotum peronato.

Hab. ad terram, Poona, prov. Bombay, Indiæ britann. (Woodrow). — *Phol. radicosæ* Bull. affinis.

7. **Pholiota Aschersoniana** P. Henn et Ruhl. Verh. Brandbg. 1901, 252
XLIII, p. 119. — Pileo carnoso, convexo-plano, centro paullum umbonato, obtuse rotundato vel plano, 3-6 cm. diam., cupreo-violascente, pilis fasciculato-radiatis, obscurioribus vestito, margine tenui, flavo-brunnescente, ochraceo-tomentoso; stipite fistuloso, sub-

tereti, superne flavido, inferne rufo-brunneolo striatulo, basi subincrassato, curvulo, 2-3,5 cm. longo, 2,5-4 mm. crasso, annulo tenui-membranaceo, fisso, albido secedente; lamellis sinuoso-adnatis dente decurrentibus, inæquilongis, confertis, lanceolatis, flavidis dein ferrugineis; basidiis clavatis, 4-sterigmaticis, 18-21 ≈ 6-8; sporis ellipsoideis vel ovoideo-ellipsoideis, basi apiculatis, læte brunneis, in massa ferrugineis, 6-7,5 ≈ 4-5; carne flavida; odore ingrato.

Hab. in calidariis in horto botanico Berolinensi Germaniæ.

8. **Pholiota aggericola** Peck — Syll. V, pag. 740. — Var. **retirugis** 253
Peck in Rep. of the State bot. 1900, p. 167. — Pileo rugoso-reticulato, cetera ut in typo.

Hab. in silvis, Westport, Amer. bor.

9. **Pholiota Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, pag. 53, 254
Syll. XVI, pag. 1113 (nomen). — Pileo carnoso, convexo plano, squamoso, aurantiaco, squamis adpressis, vertice obtuso rotundato, pallide ochraceo, 2,5-4 cm. diam.; stipite farcto tereti, curvulo, flavo-rufo, brunneo-striato, 2-3 cm. longo, 2-3.5 mm. crasso, annulo membranaceo, pallido; lamellis sinuoso-adnatis, late ventricosis, confertis, flavo-aurantiis dein ochraceis; sporis ellipsoideis, levibus, 6-8 ≈ 4-4,5, ochraceis.

Hab. ad caudices emortuos, Kamerun Africæ

10. **Pholiota granuloso-verrucosa** P. Henn. F. Indiæ or. II, in Hedw. 255
1901, p. 333. — Pusilla; pileo carnosulo, convexo, obtuso-rotundato ex pallido isabellino, verrucis granulosis obtusioribus vestito, 0,5-1 cm. diam.; stipite fistuloso-floccoso, tereti, brunneolo, sparse verrucoso-granuloso, 1,5-3 cm. longo, 1-1,5 mm. cr., annulo membranaceo secedente; lamellis subliberis v. adnexis, confertis, angustis, cinereo-ferrugineis; sporis ellipsoideis, flavo-brunneis, 3,5-4 ≈ 3, levibus.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

11. **Pholiota martinicensis** Pat. in Duss Enum. Champ. Guadel. 1903, 256
p. 54. — Pileo carnoso, convexo dein expanso, 8-15 mm. diam., brunneo-rufo, centro saturatiore, squamulis erectis, remotis, angustis, rufis consperso; lamellis adnatis, brunneis, inæqualibus; sporis ovoideis, levibus, 6 ≈ 4, brunneis; stipite centrali, gracili, 2-3 cm. long., sursum levi, basi furfuraceo-squamuloso; annulo medio, membranaceo, erecto, persistenti.

Hab. ad cortices putres Mangiferæ in silvis inferioribus in Montagne Pelée Martinicæ.

LOCELLINA Gill. — Syll. V p. 761, IX p. 94, XVI p. 87.

1. **Locellina Starnesii** Peck in the Torr. Bot. Club. 1902, p. 72. — 257
Pileo carnoso-tenui, convexo vel subplano, interdum umbonato, centro brunneo, radiatim lineariter brunneo-striato vel punctulato; carne alba; lamellis angustis, adnatis, dein liberis, initio roseo tinctis dein cinereo-brunneis; stipite tenui, sæpe curvulo, interdum erecto submedullato, albo, basi bulboso; annulo superiori; sporis brunneis, ellipticis, 5-6 × 4

Hab. in Georgia, Amer. bor. (V. Starnes). — Pileus 2,5-5 cm. latus; stipes 2,5-5 cm. long., 4 mm. crassus.

INOCYBE Fr. — Syll. V p. 762, IX p. 95, XI p. 50, XIV p. 132, XVI p. 87.

1. **Inocybe cortinata** Roll. in Bull. Soc. Myc. de France 1901, p. 117, 258
t. 3, f. 1. — Pileo carnosulo sed crasse umbonato, primum campanulato dein sat expanso, usque ad 4 cm. diam., dilute albido-stramineo, umbone ferruginescente, subtiliter fibrilloso-striato, demum lacerato, magis colorato, velo albo-floccoso; lamellis adnato-decurrentibus ventricosis, acie dilutiori, floccoso-serrulata, primum albidis dein ochraceo-fuscescentibus; sporis ovoideis, ochraceis, 8 × 4,5; stipite cylindraceo fragili, curvato flexuoso, farcto, albo sursum furfuraceo, 7-8 cm. long., 5 mm. cr., annulo fibrilloso, albo.

Hab. catervatim sub Pinu maritima, La Maure, Golf Juan Galliæ. — *In. tomentellæ, I. vatricosæ* et *I. sindoniæ* affinis sed habitu et velo differt.

2. **Inocybe** (Asterosporina) **flavo-fusca** P. Henn. in Engl. Bot. Jahrb. 259
1901, p. 52, Syll. XVI p. 1113 (nomen). — Pileo carnosulo, campanulato-expanso, flavo-cinereo, margine minute striatulo, centro obtuso, fusco-squamuloso, 2-4 cm. diam.; stipite subfarcto, tereti, flavo-brunneo, inferius brunneo-squamuloso, 4-6 cm. longo, 2-3 mm. cr.; lamellis adnatis, subconfertis, angustis, flavidis dein olivaceo-ferrugineis; sporis subglobosis asteroideis, fusco-olivaceis, 5-7 μ. diam.

Hab. ad terram, Kamerun Africæ.

3. **Inocybe squamosa** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 260
Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 129. — Pileo carnosulo, e convexo expanso, sæpe umbonato, ochraceo-fulvo, squamis concoloribus, fibrilloso-hirtis dense obsito, centro sublevi, sæpe areolato, 1-1,5 cm. lato; lamellis subdistantibus, latis postice sinuatis, e cystidiis copiosis villosis, pallide fulvis; stipite

subæquali, fibrilloso-flavidulo e farcto subcavo, 1-3 cm. longo, 2-4 mm. crasso; carne flavida, miti, odore vix ullo; sporis obovatis, 9-11 ≈ 6-7, ochraceis; basidiis clavatis, 25-30 ≈ 9-10; cystidiis subclavatis, apice muricellatis, 70-90 ≈ 10-13.

Hab. ad terram pr. Setubal Lusitaniæ. — *Inocybe dulcamaræ* Alb. et Schw. et *In cæsariatæ* Fr. proxima, quarum formam et colores quoque habet, sed pileo evidentius squamoso, sporis latioribus et præsentia cystidiorum optime distincta.

4. **Inocybe bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, Syll. XVI, pag. 1113 (nomen). — Pileo carnosulo, campanulato-obtuso, tomentosulo-squamoso, castaneo, 1,5-2 cm. diam.; stipite farcto, tereti, squamuloso, cinereo-brunneo, 3-5 cm. longo, 1,5 mm. cr.; lamellis adnatis, subconfertis, pallidis dein olivaceo-fuscis; sporis ellipsoideis, 1-guttulatis, 5-7 ≈ 3,5-4, episporio flavo-brunneolo, levi. 261

Hab. in ligno putri, Kamerun Africæ.

5. **Inocybe subochracea** Peck — Syll. V, p. 796, sub *Hebeloma*. — Var. **Burtii** Peck Rep. of the State Bot. 1900, p. 167. — Cortina conspicua, fibrillosa; margine pilei magis fibrilloso; stipite longiori et etiam magis fibrilloso. 262

Hab. ad terram paludosam, Gloodwood, Amer. bor. (E. A. Burt).

HEBELOMA Fr. — Syll. V p. 791, IX p. 102, XI pag. 54, XIV p. 134, XVI p. 91.

1. **Hebeloma Bakeri** Earle in New York Bot. Gard. 1902, p. 342. — Solitarium; pileo 5-7 cm., expanso, cremeo, disco intensius concolori, viscido glabro, margine integro; carne albida vel cremea; odore saporeque grato; stipite circ. 8 cm. longo, 7 mm. lato, æquali, inferne subglabro, superne pruinoso, solido, pileo concolori, firmo; lamellis profunde sinuosis, heterophyllis, stipatis, subventricosis, pallide ochraceo-brunneis, margine albidis et subcrenulatis; sporis elliptico-ovatis, 10-12 ≈ 6-7, centro vacuolatis. 263

Hab. sub quercetis, Stanford University Californiæ.

2. **Hebeloma sericipes** Earle in New York Bot. Gard. 1902, p. 342. — Solitarium; pileo 4-6 cm. late convexo-plano vel subdepresso, obtuso, pallide olivaceo-brunneo, sicco, disco glabro, margine sericeo-fibrilloso, integro; carne albida, sapore odoreque grato; stipite 4-6 cm., 7-9 mm., æquali, inferne subglabro, superne sericeo-fibrilloso, albido, firmo, tortuoso; lamellis sinuosis, stipatis, subconstrictis, fere 264

planis, initio albidis dein ochraceo-brunneis, margine albidis, crenulatis; sporis ellipticis vel subovatis, levibus, late centro vacuolatis, 7-10 × 5-7.

Hab. ad terram, in silvis Stanford University Californiæ.

3. **Hebeloma albidulum** Peck Rep. of the State bot. 1900, pag. 148. 265
— Pileo carnoso, firmo, subconvexo vel fere plano, glabro, subviscido dein brunneo albido vel griseo-albo, 2,5-6 cm. lato; carne alba; lamellis stipatis, constrictis, adnatis, minute denticulatis, acie albidis, albis dein brunneo-ferrugineis; stipite æquali, firmo, glabro, superne farinoso-pruinoso, sæpe bulbosulo, cavo, pileo concolori, 3,5-6 cm. longo, 4-6 mm. crasso; sporis subellipsoideis, obtusis, 10-12,5 × 6-7,5.

Hab. in silvis, Westport, Amer. bor. — *H. albo* Peck valde affinis species sed pilei colore, sporisque obtusis differt.

4. **Hebeloma pascuense** Peck Rep. of the State Bot. 1899, pag. 844, 266
t *C*, fig. 21-27. — Pileo convexo dein subplano, viscido, obscure fibrilloso, brunneo-argillaceo, sæpe centro rufescenti, margine albicanti, 2,5-5 cm. diam.; carne albida, sapore grato, odore subnullo; lamellis stipatis, acie rotundatis, albidis dein pallide ochraceis; stipite firmo, brevi, 2,5-5 cm. alto, 4-6 mm. crasso, æquali, fibrilloso, sursum farinoso, albido vel pallido; sporis pallide ochraceis, subellipticis, 1-nucleatis, 10 × 6.

Hab. in herbosis aridis, gregarium vel subcæspitosum, prope Warrensburg, Amer. bor.

5. **Hebeloma album** Peck Rep. of the State Bot. 1900, p. 147, t. *G*, 267
fig. 1-7. — Pileo carnoso, firmo, convexo dein fere plano v. concavo, margine incurvato, glabro, subviscido, albo vel luteo-albo, 2,5-3,5 cm. diam.; carne alba; lamellis tenuibus, constrictis, stipatis, emarginatis, adnatis, albidis dein brunneo-ferrugineis; stipite æquali, firmo, longiusculo, solido, farcto, superne farinosulo, albo, 3,5-7,5 cm. longo, 4-6 mm. crasso; sporis subellipsoideis, utrinque apiculatis vel 1-apiculatis, 12,5-15 × 6-7,5.

Hab. in silvis, Westport, Amer. bor.

6. **Hebeloma bulbosum** Fayod in Ann. R. Acc. d'Agr. Torino 1893, 268
p. 95, *Agaricus fastibilis parvulus* Secret.? — Pileo hemisphærico albo v. lutescente, levi, dein pulvinato, 4-5 cm. lat., umbone obtuso, jove udo subviscoso; carne alba, centro circ. 1 cm. cr.; stipite medullato-farcto, 6-7 cm. longo, 0,5 cm. lato, albo, apice farinoso, basi in bulbillum subsphæricum inflato; lamellis liberis subconfertis, acie crenulatis et albo punctatis, cinnamomeis; cy-

stidiis clavatis; basidiis emergentibus 27 × 9, tetrasterigmaticis; sporis ovoideo-conoideis, 9 × 6, levibus v. subtiliter punctatis, sub microscop. ochraceis.

Hab. catervatim in graminosis, betuletis et alnetis in alpibus Bricherasio Pedemontii.

FLAMMULA Fr. — Syll. V pag. 809, IX pag. 104, XI p. 56, XIV p. 136, XVI p. 94

1. **Flammula californica** Earle in New York Bot. Gard. 1902, p. 342. 269
— Gregaria vel cæspitosa; pileo 4-7 cm. diam., expanso, subumbonato pallide ochraceo-brunneo, umbone sæpe intense concolori, glabro, subhygrophano, margine integro; carne cremea, sapore odoreque subnullo; lamellis subsinuoso-decurrentibus, heterophyllis, stipatis, subventricosis, pallide ochraceis vel fusco-ferrugineis; stipite 5-6 cm., 3-4 mm., subæquali, apice et basi fere incrassatulo, superne glabro, albo-luteo, inferne fibrilloso, brunneo, firmo; sporis ferrugineis, ellipticis, 6-7 × 4.

Hab. in silvosis, Stanford University Californiæ.

2. **Flammula ochraceo-tristis** P. Henn in Engl. Bot. Jahrb. 1901, 270
p. 53, Syll. XVI, p. 1114 (nomen). — Pileo carnosulo, convexo-expanso, centro obtuso fusco-squamuloso, radiato striatulo, ochraceo-brunneo, margine pallidiori, 4-6 cm. diam.; stipite farcto tereti, flexuosulo, striato, subfimbriato, atro-brunneo, 6-8 cm. longo, 4-5 mm. cr.; lamellis sinuoso-adnatis, late ventricosis, subconfertis, pallide flavis fuscescentibus; sporis ellipsoideis vel ovoideis, basi apiculatis, intus granulosis, episporio flavidulo vel brunneolo, levi.

Hab. ad terram, Kamerun Afr. — *Fl. flocciferæ* affinis.

3. **Flammula Braendlei** Peck Bull. Torr. Bot. Cl. 1904, pag. 180. — 271
Pileo convexo dein subplano, margine incurvo, interdum irregulari, fibrilloso-squamuloso, præsertim ad centrum, leniter viscido, juniore purpureo, dein flavido v. flavido-albo, interdum virescentitincto; carne albida; lamellis tenuibus, confertis, adnatis v. breve decurrentibus, maturis ferrugineis: stipite æquali v. sursum leviter tenuato, fibrilloso, cavo, albido brunneo-variegato; velo arachnoideo, interdum zonam sericeam circa stipitem formante; sporis ellipsoideis 6-8 × 4-5, ferrugineis.

Hab. solitaria v. cæspitosa ad truncos dejectos, pr. Washington et St. Louis Amer. bor. (Braendle et Glatfelter). — Pileus 2, 5-5 cm. lat.; stipes 2,5-5 cm. long., 4-8 mm. cr.

4. **Flammula excentrica** Peck Bull. Torr. Bot. Cl. 1904, p. 179. — 272
Pileo tenui, late convexo, obtuso v. leviter umbonato, sicco, minute squamuloso, fulvo, flavido v. rubido-ferrugineo; carne albida; lamellis latiusculis, confertis, subsinuato-adnatis, fumose ochraceis, demum ferrugineis; stipite æquali v. sursum leviter tenuato, vulgo excentrico, solido, fibrilloso, flavido v. subochraceo, demum intus extusque brunneo; sporis late ferrugineis, ellipsoideis, 15-16 × 8.

Hab. ad ligna putrida pr. St. Louis Mo. Amer. bor. (Glatfelter). — Pileus 2,5-3, cm. lat.; stip. 2-3 cm. long, 4-8 mm. cr.

5. **Flammula velata** Peck Bull. Torr. Bot. Cl. 1903, p. 96. — Pileo 273
carnoso, ad marginem attenuato, convexo, udo, sulphureo-flavo, centro rubescente vel aurantio, margine persistenter incurvato; carne flavida v. viridi-flavida, sapore dulci; lamellis arcuatis, adnatis vel leviter decurrentibus, 5 mm. lat., pallide flavis, denique subrubiginosis, primitus velo distincto, tenuiter arachnoideo, flavido-albo obductis; stipite brevi, tenui, flexuoso, farcto, apice sulphurello, deorsum brunneolo, basi tomentello; sporis ellipsoideis, 5-8 μ. longis.

Hab. ad terram silvaticam ad pedem M.r Moscow Idaho Amer. bor. — Pileus 2-4 cm. lat., stipes 2,5-4,5 cm. long., 2-4 mm. cr.

6. **Flammula alnicola** Fr. — Syll. V, p. 820. — Var. **marginalis** Peck 274
Rep. of the State Bot. 1900, p. 167. — Pileo carnoso, firmo, conico v. subcampanulato, viscido, glabro, margine fibrilloso-tomentoso, luteo, 16-32 mm. diam.; carne alba, sapore grato; lamellis tenuibus, stipatis, rotundatis, pallide luteis dein ferrugineis; stipite firmo, subæquali, farcto vel cavo, fibrilloso, subannulato, superne luteo, inferne ferrugineo, 6-8,5 cm. longo, 4-8 mm. crasso; sporis ellipsoideis, 7,5-10 × 5.

Hab. cæspitosa in lignis emortuis Aceris rubri, Westport, Amer. bor.

7. **Flammula echinospora** Speg. Myc. argent. ser. II, 1902, p. 51. — 275
Solitaria v. rarius 2-3-cæspitosa, pileo primo convexulo dein concavo, postremo infundibuliformi, 15-25 mm. diam., plus minusve excentrico, lutescenti-ferrugineo, pulverulento-pruinosulo; carne pallide lutescente; lamellis non confertis, latiusculis, 1,5-2 mm. lat., fulvis, longe decurrentibus, primo ferrugineis dein fusco-ferrugineis; stipite 10-20 mm. longo, 2-3 mm. crasso, pulverulento, velutino, ferrugineo farcto, basi non dilatato, e tereti compressulo; cystidiis nullis; basidiis clavulatis, 30-35 × 8-10 hyalinis; sporis

globosis, 7-8 μ. diam. non vel vix rostellatis, tenuiter tunicatis, dense verruculoso-papillosis, ferrugineis.

Hab. ad terram humosam prope Cordoba in Argentina.

8. **Flammula sulphurea** Massee in Bot. Tidsskrift-Copenhagen 1902, vol. 24, pag. 215. — Cæspitosa; pileo convexo expanso, glabro, margine pellucide striato, sicco levi, læte sulphureo, 1-2 cm. lato; lamellis distantibus, decurrentibus, concoloribus; sporis fulvidis, 6 × 4; stipite e farcto cavo, glabro, sursum attenuato, flavido, basi fuscescenti, 4-6 cm. alto. 276

Hab. ad terram prope Klong Son, Siam Asiæ merid. — *Fl. tilopodæ* Kalchbr. et Mc. Ov. affinis.

9. **Flammula aureo-viridis** Pat. in Duss Enum. Champ. Guad. 1903, p. 55. – Pileo convexo, centro umbilicato, e flavo-aureo viridulo, unicolore, glabro, levi, 15 mm. diam.; lamellis adnatis, confertis, angustis, rufescenti-brunneis; stipite centrali, cylindrico, flexuoso, flavo-virenti, fibrilloso, 4-7 cm. long., 1 mm. cr.; sporis ochraceo-purpureis, 6-8 × 5. 277

Hab. catervatim ad ligna putrescentia, Camp Jacob Guadalupa (Duss). — Analoga *Hypholomati fasciculari.*

10. **Flammula olivacea** Pat. in Duss Enum. Champ. Guadel. 1903, p. 55. — Pileo convexo, centro mamillato-obtuso, flavo-olivaceo, unicolori, glabro, levi, 6-12 mm. diam.; lamellis angustis, confertis, adnatis, brunneolis; stipite filiformi, centrali, cylindrico, pileo concolori, 15 mm. long.; sporis flavo-rufescentibus, ovoideis, levibus, 8 × 5. 278

Hab. cæspitosa ad ligna putrida, Basse-Terre Guadalupa (Duss).

11. **Flammula pusilla** Peck in Rep. of the State Botan. 1902, p. 26, t. *M*, fig. 35-41. — Pileo tenui, convexo dein subplano, glabro, viscido, pallide fulvo v. luteo-ferrugineo, 12-24 mm. lato; lamellis constrictis, adnatis, stipatis, albidis dein brunneo-ferrugineis; stipite æquali, solido, farcto, floccoso-fibrilloso, albido dein basi ferrugineo, villoso-strigoso, sursum floccoso-pulverulento, 16-30 mm. longo, 2 mm. crasso; sporis ellipsoideis, 7,5 × 4. 279

Hab. in truncis putrescentibus, in silvis Smithtown, Suffolk co., Amer. bor.

12. **Flammula granulosa** Peck in Bull. Torr. Bot. Club 1902, XXIX, pag. 561. — Pileo hemisphærico 1,5-3 cm. d., squamuloso, fulvo; lamellis latis, vix decurrentibus, flavo-ferrugineis; stipite 2,5-3 cm. l., 2 mm. cr., concolore; sporis 7-8 × 4-5.

Hab. ad ligna emortua M.t Desert Am. bor.

NAUCORIA — Fr. Syll. V p. 828, IX p. 109, XI p. 57, XIV p. 139, XVI, p. 97.

1. **Naucoria striata** Clem. et Shear in Bot. Surv. Nebr. 1901, p. 10. 280
— Gregaria; pileo carnoso, convexo, dein explanato repandoque, glabro, glutinoso, ochroleuco, pallide marginato, 3–6 cm. diam.; stipite æquali vel basi subincrassato, interdum compresso solido vel ætate medullato, fibroso, in parte superiore lineato, lucenti, pallide cremeo, inferne fuscescenti 4–7 cm. longo, 13–15 mm. cr.; lamellis liberis, interdum stipatis, ventricosis, initio pallide umbrinis, dein ferrugineis; sporis ovoideis, levibus, ferrugineis, 7–8 ≈ 5.

Hab. in terra humosa, Lincoln, Nebraska, Amer. bor.

2. **Naucoria firma** Peck Rep. of the State Bot. 1900, p. 148, t. *H*, 281
fig. 10-16. — Pileo carnoso, firmo, subconvexo, cito fere plano, hygrophano, nigro-brunneo, in sicco ochraceo-brunneo, sæpe ruguloso, 16-24 mm. diam.; carne alba, sapore farinaceo, dein aquoso; lamellis tenuibus, constrictis, stipatis, acie rotundatis, adnatis, minute flocculosis, pallidis; stipite firmo, æquali, sæpe curvulo, farcto vel cavo, fibrilloso-striato minuteque flocculoso, pileo concolori v. pallidiori, 2,5-5 cm. longo, 2-4 mm. crasso; sporis ellipticis, brunneo-ferrugineis, 7,5 ≈ 5.

Hab. in truncis emortuis, Floodwood, Amer. bor.

3. **Naucoria tuberosa** P. Henn. Hedw. p. (310) c. ic. — Pileo hemi- 282
sphærico, convexo, subcarnoso, levi, glabro, flavo-brunneo, 2,5-2 cm. diam., stipite cylindrico gracili, albo-medullato, dein subcavo, flavo-brunneolo; striatulo glabro, 4-8 cm. long, 2-3 mm. cr., basi conspicue bulboso-incrassato, mycelio albido, filamentoso vel submembranaceo infra munito; lamellis sinuoso-adnexis, medio subventricosis, 3 mm. lat., remotiusculis, umbrinis, acie pallidiore; cystidiis ampulliformibus, 30-40 ≈ 10; basidiis clavatis, 20-25 μ. long.; sporis ellipsoideis, raro ovoideis, sordide flavo-brunneolis, levibus, 7-9 ≈ 4-5.

Hab. in hortis Michailowskoje gub. Mosquensis Rossiæ. — (Comitissa K. Scheremetjeff.).

4. **Naucoria uliginosa** Peck Rep. of the State Bot. 1900, pag. 149, 283
tab. *H*, fig. 1-9. — Pileo tenui, convexo, dein fere plano, glabro, hygrophano, intense brunneo, margine striatulo, dein in sicco pallidiori, 12-20 mm. lato; carne brunnea; lamellis latis, modice stipatis, acie rotundatis, adnatis, crenulatis, subventricosis, fractis ochraceis; stipite filiformi, firmo, subfibrilloso, cavo, rubro-brunneo

dein in sicco pallido, 2,5-5 cm. longo, 2 mm. crasso; sporis brunneo-ferrugineis, subellipticis, sæpe 1-nucleatis, 10-12,5 × 5-6.

Hab. in paludosis, Sandlake, Rensselaer Co., Amer. bor.

5. **Naucoria fusispora** P. Henn. Fungi Indiæ or. II in Hedw. 1901, 284
p. 332. — Purpurea; pileo submembranaceo-carnosulo, campanulato, vertice subumbilicato depresso, conico v. obtuso-papillato, radiato-striato, 1-2 cm. diam.; stipite fistuloso, tenaci corticato, æquali, gracili, levi, glabro, basi radicato, castaneo vel purpureo, 5-11 cm. longo, 1-2 mm. crasso; lamellis adnatis, subconfertis, lanceolatis, 1,5-2 mm. latis, purpureis; sporis oblongo-fusoideis, utrinque apiculatis, 1-guttulatis, 6-8 × 4, flavo-ochraceis.

Hab. ad terram, Mussoorie, Arnigadh Indiæ orient.

6. **Naucoria coloradensis** Tracy et Earle in Plantæ Bakerianæ fasc. I, 285
fungi pag. 25. — Pileo convexo, expanso, subumbonato, luteo-brunneo, sæpe in umbone intensius concolori, sericeo, setulis luteolis, margine non striato, in ætate juvenili fortiter incurvato; lamellis adnatis, brunneo-albidis dein intense brunneis, cortina arachnoidea mox evanida; stipite 4-6 cm. alt., 4-8 mm. crass., subbulboso, pileo concolori, pruinoso; sporis ovoideis, ferrugineo-brunneis, 1-vacuolatis, 10 × 6.

Hab. ad terram udam, in umbrosis, Mancos, South Colorado, Amer. bor.

7. **Naucoria Cucumis** Pers. Syn. p. 316. — Syll. V, p. 831. — *Nolanea pisciodora* Ces. Comm. critt. ital. p. 61, t. 3, f. 2! *Nolanea picea* Kalchbr. Ic. Hung. t. 11, f. 2!

Hab. quoque ad terram in Polonia. – Species hæc prorsus singularis et vix recte ad genera hucusque admissa trahenda. Forma sporarum straminearum oblonga, 8-10 × 3 $^1/_2$-4, magis cum *Naucoriis* conjungit: consistentia pilei et stipitis ad *Collybias* accedit (Bres. Fungi Polon. in Ann. Mycol. 1903, p. 71).

8. **Naucoria Zenkeriana** P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 286
Syll. XVI, p. 1114 (nomen). — Cæspitosa; pileo submembranaceo, convexo-campanulato, vertice subconico-papillato, radiatim substriato, flavo-olivascenti, 6-10 mm. diam; stipite tenaci, fistuloso, gracili, levi, glabro, 2-5 cm. longo, 1-1,5 mm. crasso, luteo; lamellis adnatis, subconfertis, cinereo-flavidis dein fuscidulis; sporis ellipsoideis, levibus, flavo-brunneolis, 5,5-7 × 3,5-4.

Hab. in udis silvaticis, Kamerun Africæ.

9. **Naucoria jaundensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 53, 287
Syll. XVI, p. 1114 (nomen). — Cæspitosa; pileo submembranaceo,

campanulato-expanso, levi, glabro, ferrugineo-brunneo, centro obscuriori, ad marginem minute striatulo, 3-7 mm. diam.; stipite subfistuloso, tenaci, tereti, flexuoso, levi, glabro, rufo-brunneo. 1,5-2 cm. long., 0,7-1 mm. cr.; lamellis adnatis, inæquilongis, vix confertis, angustis, ferrugineis; sporis ellipsoideis, 1-guttulatis, flavo-brunneolis, 5-6 ≈ 3,5-4,5.

Hab. in silvis Jaunde, Kamerun Africæ.

10. **Naucoria nana** L. Petri, in Ann. Mycol. 1904, p. 9, fig. 1-2. — 283
Pileo carnosulo, primo e conico campanulato dein convexo-plano, umbonato, 4-6 mm. lato, viscido, nigricante, ad ambitum ferrugineo, striatulo; velo arachnoideo-fugaci; stipite fistuloso, tenui, 9-12 mm. longo, deorsum incrassato, sericello, albo-fibrilloso; lamellis ventricosis, distantibus, latis, flavo-ferrugineis, denticulo decurrentibus; basidiis clavulatis, 19-21 μ. longis bisporis; cystidiis elongatis, basi inflatis, 40-45 μ. longis, apice incrustato-capitatis; sporis ovato-lanceolatis, levibus, subferrugineis, sterigmate brevi suffultis, apice minute papillatis, 10-12 ≈ 4,5-6.

Hab. ad terram e detritis Castaneæ in calidariis Horti bot. florentini. — An species exotica cum plantis cultis allata? *N. triscopodæ* et *N. sideroidi* subaffinis.

11. **Naucoria juruensis** P. Henn. F. Amaz. I, p. 183 (Hedw. 1904). 289
— Pileo membranaceo, convexo applanato, medio interdum papillato, margine radiatim subsulcato, ochraceo, ca. 1-2 mm. diam.; stipite filiformi vel setiformi, brunneo vel atro-ferrugineo pruinoso, 1 $^1/_2$-2 cm. longo, 120-140 μ. crasso; lamellis adnatis, confertis, ventricosis, crispulis, ochraceis; sporis ovoideis vel subellipsoideis, intus granulatis, ochraceis, 3-4 $^1/_2$ ≈ 2 $^1/_2$-3.

Hab. ad truncos putres inter muscos, Rio Juruá, Juruá-Miry Amazoniæ (Ule). — Videtur affinis *N. rimulincolæ*, tamen bene distincta.

12. **Naucoria myriensis** P. Henn. F. Amaz. I, p. 183 (Hedw. 1904). 290
— Pileo carnosulo, convexo-campanulato, obtuso vel subpapillato, radiatim sulcatulo, castaneo, ca. 1 $^1/_2$ mm. diam.; stipite filiformi, atro-castaneo, pruinoso 3-5 cm. longo, 0,3 mm. crasso, basi incrassato; lamellis adnatis, subdistantibus, acie obtusis, castaneis; sporis ellipsoideis vel ovoideis, brunneolis, 1-guttulatis, levibus, 4-5 μ.

Hab. ad ramos putres Rio Juruá, Juruá-Miry Amazoniæ (Ule). — *N. rimulincolæ* quoque affinis.

PLUTEOLUS Fr. — Syll. V p. 859, XI p. 60, XIV p. 141, XVI pag. 102.

1. **Pluteolus aleuriatus** Fr. — Syll. V p. 859. — Var. **gracilis** Peck 291
Rep of the State bot. 1900, pag. 149. — Pileo submembranaceo, fragili, subplano, viscido, margine profunde striato, hygrophano, intense griseo-brunneo, in sicco pallido, 16-24 mm. lato; lamellis tenuibus, stipatis, constrictis, subventricosis, liberis, albidis dein ferrugineis; stipite filiformi, æquali, cavo, minute pulverulento, superne substriato, niveo albo, 2,5-3,5 cm. longo, 1-2 mm. crasso; sporis ferrugineis, ellipsoïdeis, 1-nucleatis, 10-12,5 × 5-6.

Hab. in silvis, Westport, Amer. bor.

2. **Pluteolus glutinosus** Clem. Bot. Surv. Nebraska 1901, p. 10. — 292
Pileo membranaceo, conico-campanulato dein explanato v. repando, glabro, umbonato, dense mucilaginoso, margine striato, griseo-stramineo, marginem versus fuscescenti, 1,5-2 cm. lato; stipite gracili, cavo, lucenti, æquali, dense fibrilloso-pulverulento, pallide ochroleuco, apicem versus albo-striato, 3 mm. crasso, 5-10 cm. alto; lamellis liberis, distantibus, ventricosis, brunneis; sporis ovatis vel ovato-ellipsoideis, levibus, succineis, 13-16 × 10-12.

Hab. in foliis stercoratis, in silva Octowanie, Nebraska Americæ borealis.

BOLBITIUS Fr. — Syll. V pag. 1073, IX p. 143, XI p. 74, XIV p. 156, XVI p. 127.

1. **Bolbitius Glatfelteri** Peck Bull. Torr. Bot. Cl. 1903, pag. 97. — 293
Pileo tenui, conico v. subcampanulato, mox expanso, margine incurvo, subinde umbonato, glabro, admodum viscido, margine lato striato, albo, centro flavido v. subfulvo; lamellis confertis, sat angustis, subventricosis, liberis, pallidis, demum ferrugineis et pulverulentis; stipite æquali v. sursum leviter tenuato, cavo, supra striatulo, juniore squamuloso v. furfuraceo, demum glabro, nitido et pure albo; sporis 12-16 × 8-10.

Hab. gregatim vel cæspitosus in fimetis, Missouri et Illinois Amer. bor. (N. M. Glatfelter). — Subaffinis *B. sordido* Lloyd.

2. **Bolbitius Demangei** (Quél.) Sacc. et D. Sacc., *Pluteolus Demangei* 294
Quél. Assoc. franç. l'Avanc. Sc., 1901, II partie, p. 495, pl. III, f. 5. — Pileo convexo-plano, 3-4 cm. lato, membranaceo, striato, viscoso, fusco-lilacino, margine pallidiore; carne alba, stipitis rosea; lamellis liberis vel subdistantibus, sinuatis, confertis, ochraceo-pal-

lidis dein fuscellis; stipite fistuloso, recto, pruinoso, albo dein deorsum roseo; sporis pruniformibus, ochraceis, 12-14 μ. longis.

Hab. in fimetosis ad margines viarum, catervatim, in Vogesis, autumno (Vict. Demange). — Forte var. *P. titubantis.*

GALERA Fr. — Syll. V p. 860, IX p. 113, XI p. 60, XIV p. 141, XVI pag. 103.

1. **Galera bryophila** Peck Rep. of the State bot. 1900, pag. 149, t. *G*, fig. 15-21. — 295
Pileo tenui, ovato vel subconico, obtuso, hygrophano, luteolo dein in sicco albo, æquali v. margine striatulo, 6-10 mm. lato; lamellis tenuibus, constrictis, subdistantibus, albis vel albidis dein ochraceo-luteis; stipite filiformi, flexuoso, cavo, subsericeo-fibrilloso, superne lanuginoso-pruinoso, basi mycelio albido obvoluto, 3,5-5 cm. longo, 1 mm. crasso, albido vel pallido; sporis pallide brunneis, ochraceis, ellipsoideis, 10-12,5 × 6-7,5.

Hab. in muscosis, Westport, Amer. bor.

2. **Galera reticulata** Peck Rep. of the State bot. 1900, pag. 150. — 296
Pileo tenui, fragili, hemisphærico v. campanulato, obtuso, glabro, hygrophano, cinnamomeo, dein cremeo-luteo, ruguloso-reticulato, 10-24 mm. lato; carne alba vel albida; lamellis angustis, stipatis, ascendentibus, luteolis dein subferrugineis; stipite filiformi, æquali, cavo, subpruinoso, superne striato, albo, 2,5-6 cm. longo, 2-4 mm. crasso; sporis ferrugineis, ellipsoideis, 7,5 × 4-5.

Hab. in muscosis, Ithaca, Amer. bor. (G. F. Atkinson).

3. **Galera paradoxa** Speg. in Ann. Soc. Cient. Arg. 1899, p. 274. — 297
Solitaria vel laxe gregaria; pileo cylindraceo, 20-40 mm. long., 5-7 mm. diam., superne breviter sensimqne attenuato ac in umbone rostriformi, 4-6 mm. long., 1-1,5 mm. diam., cylindraceo-conoideo producto, deorsum subcoarctato repandulo subplicato; stipite adpresso, margine recto e castaneo-ferrugineo, tenuiter minuteque fibrilloso-sericeo, nitentiusculo, fibris spiraliter longitrorsum dispositis (et pileo torto viso); carne vix evoluta sordide rufescente; lamellis confertis, angustis, 1 mm. lat., tenuiter membranaceis, acie integris, utrinque acutissime attenuatis, a stipite liberis, ferrugineis; stipite pileo duplo vel quintuplo longiore, gracili, 60-100 mm. longo et 1,3-5 mm. crasso, tereti, rigidulo, fistuloso, pileo concolori, levi v. vix fibrilloso, sericeo-nitentiusculo, basi non vel vix incrassato, intus late fistuloso; sporis ellipticis vel ovatis, 16-20 × 10-12 levibus, ferrugineis.

Hab. in pratis arenosis secus Rio Chubut, Patagoniæ. — Spe-

cies habitu *Orthotricha* v. *Phasca* nonnulla calyptra adhuc vestita in mentem revocat

TUBARIA W. Ser. — Syll. V p. 872, IX p. 114, XI p. 61, XIV p. 143, XVI p. 105.

1. **Tubaria asperata** P. Henn. Fungi Indiæ or. II. in Hedw. 1901, 288
p 331. — Carnosula; pileo convexo-expanso, medio depresso, subochraceo, squamis aculeatis, rigidis obscurioribus, sparse asperato, margine obsolete striato, 8-18 mm. diam.; stipite subfistuloso, postice incrassato, tereti, striato, levi, curvulo, basi discoideo, flavobrunneo, 1,5-2 cm. longo, 1-1,5 cm. cr.; lamellis longe decurrentibus subtriquetris, subconfertis, ventricosis, 1,5-2 mm. latis, flavo-ochraceis; sporis ellipsoideis vel subovoideis, levibus, flavo-ochraceis, 6-7 × 4.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

2. **Tubaria saharanpurensis** P. Henn. Fungi Indiæ or. II, in Hedw. 289
1901, pag. 332. — Pileo submembranaceo, convexo campanulato, medio depresso subumbilicato, albido, sicco flavescente, levi glabroque, 5-12 mm. diam.; stipite fistuloso, subcompresso, levi, glabro, subpruinoso, 1,5-2,5 cm. longo, 1 mm. cr., pallido, sicco brunneo; lamellis flavidis, adnatis, paullo decurrentibus subconfertis, angustis; sporis subgloboso-ellipsoideis, 5-6 × 4, flavidis.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

3. **Tubaria brevipes** P. Harrim. Alaska Exped. Crypt. p. 45. — Pileo 290
tenui convexo, glabro, ferrugineo; lamellis latis arcuatis, distantibus, adnatis vel leviter decurrentibus, ferrugineis; stipite brevi, gracili, glabro, cavo, brunneo; sporis ellipsoideis, 1-nucleatis, 10-12 × 7-8.

Hab. ad terram Port Clarence Alaska (Trelease). — Pileus 6-10 mm. lat.; stipes 6-14 mm. long., vix 1 mm. cr. Habitus *Omphaliæ campanellæ* sed sporæ ferrugineæ.

CREPIDOTUS Fr. — Syll. V pag. 876, IX p. 155, XI p. 62, XIV p. 144, XVI p. 108.

1. **Crepidotus laceratus** Pat. Champ de la Guadeloupe, ser. III, in 291
Bull. Soc. Myc. de France, tab. XVIII. fasc. II, 1902. — Pileo carnoso, ochraceo rufo, pulverulento, ruguloso, flabellato, profunde lacero, postice attenuato, 10-15 mm. long., 8-10 mm. lat. lamellis numerosis, inæqualibus, integris concoloribus; sporis ovoideis, verrucosis, ochraceis, 5-6 × 4-5.

Hab. ad ligna putrescentia in Guadalupa (Duss). — *C. pyrrho* affinis sed minutie pilei pulverulenti etc. diversus.

2. **Crepidotus cuneiformis** Pat. Champ. de la Guadeloupe, ser. III, 302
in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Pileo convexo-plano, antice incurvo, margine striolato, postice cuneato, carnoso, molli, glabro, pallide-brunneo, 8-12 mm. lat.; lamellis latis, inæqualibus, brunneolis, subremotis, mollibus, ad punctum insertionis productis; sporis levibus globulosis, brunneis, 6 μ. diam.

Hab. in fragmentis ligneis, putridis, in Guadalupa (Duss).

3. **Crepidotus Psychotriæ** Pat. Champ. de la Guadeloupe, ser. III, 303
in Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Sparsus vel cæspitosus; pileo carnoso, firmo, convexo, glabro, nec sulcato, nec inciso, orbiculari, postice emarginato, ochraceo-pallido, 5-10 mm. lato; stipite nullo; lamellis inæqualibus, latis, confertis, brunneolis; sporis pallide brunneis, 8 × 5, ovoideis, levibus.

Hab. in ramis putridis Psychotriæ glabratæ in Guadalupa (Duss). — Affinis *Crep. molli.*

4. **Crepidotus Citri** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 304
Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Sparsus, resupinatus dein dimidiatus; pileo orbiculari, convexo, tenui, molli, albo-rufescente, glabro, nec striato, nec inciso, minuto, 3-6 mm. diam., postice reniformi; stipite excentrico obsoleto, fugaci, albo, in centro maculæ mycelicæ albæ et tenuissimæ inserto; lamellis tenuibus excentricis, ochraceis; sporis ovoideis, levibus, 7 × 4 flavido-pallidis.

Hab. in cortice putri Citri in Guadalupa (Duss).

5. **Crepidotus Dussii** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 305
Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Pileo convexo, orbiculari, postice emarginato, glabro, subviscoso non striato, flavo, margine incurvo integro, 3-5 mm. diam.; stipite nullo; lamellis distantibus, latis, flavo-brunneis, inæqualibus; sporis ovoideis, levibus, ochraceis, 8-9 × 6.

Hab. in fragmentis putridis, ligneis in Guadalupa (Duss).

CORTINARIUS Fr. — Syll. V p. 889, IX p. 117, XI p. 64, XIV p. 845, XVI p. 110.

1. **Cortinarius aurasiacus** Pat. Champ. Algero-Tunis. in Bull. Soc. 306
Myc. de France t. XVIII, 1902, fasc. I, p. 49. — Pileo carnoso, firmo, convexo, dein plano, 10-12 cm. diam., levi, luteo ochraceo pallido, centro albido-lucenti; margine acuto, reflexo, lilacino-mar-

ginato; cortina filamentosa, fulva, infera; lamellis adnatis stipatis, fulvis, margine sublilacinis; sporis verrucosis, 10-12 × 6, ochraceis.

Hab. ad ligna Quercus Ilicis, Sgag Algeriæ. — Initio hypogæus, dein erumpens, more *Terfeziæ*. Sapor dulcis. *C. multiformi, C. largo* et *C. dibapho* affinis.

2. **Cortinarius Whiteæ** Peck in Bull. Torr. Bot. Club 1902, XXIX, p. 560. — Pileo carnoso, hemisphærico, demum subplano, margine undulato-lobato, sicco, glabro, subpruinoso, rubescenti v. e brunneolo-aurantio fulvescenti; lamellis subdistantibus, profunde et late emarginatis rubido-brunneis, dein subcinnamomeis; stipite longo, æquali, solido, fibroso, pileo concolori, lineis fibrosis saturatioribus ornato; sporis subglobosis, 7-8 × 7. 307

Hab. in silvis Mont Desert Amer. bor. (Miss. V. White). — Pileus 6-12 cm. lat.; stipes 7-12 cm. long, 1,5-2 cm. cr. Magna species, inter subgen. *Dermocyben* et *Telamoniam* nutans.

3. **Cortinarius radians** Earle in New York Bot. Gard. 1902, p. 343. — Pileo 7,5-11 cm. diam., expanso, obtuso, pallide brunneo, disco griseo, venulis radiantibus, griseis striato, fere levi, sed minute radiato-fibrilloso, viscidulo, margine constricto, reflexo vel subrevoluto; stipite 6,5-8,5 × 1,5-3 cm., subæquali, inferne subincrassatulo, fere levi vel parce fibrilloso, brunneo, firmo, sed intus molli; carne pallide brunnea, odore saporeque grato; lamellis heterophyllis, constricte sinuatis, stipatis, subventricosis, initio pallidis? dein intense cinnamomeis; sporis ferrugineo-cinnamomeis, anguste ovatis, granulosis, 9-11 × 5-6. 308

Hab. in quercetis. Stanford University Californiæ.

4. **Cortinarius submarginalis** Peck in Rep. of the State bot. 1901, p. 950, tab. *L*, fig. 6-10. — Pileo carnoso, 5-10 cm. lato, firmo, convexo dein subplano v. margine elevato concavo, viscido, luteo-brunneo, margine fibrilloso; carne albida; lamellis constrictis, stipatis, adnatis, cremeo-luteis dein cinnamomeis; stipite 7,5-15 cm. longo, 8-12 mm. crasso, æquali v. basi incrassatulo, solido, sericeo-fibrilloso, subviscido, albido vel pallido; sporis subellipsoideis, 10-12,5 × 5-6. 309

Hab. in silvis, Bolton, Amer. bor.

5. **Cortinarius subvolvatus** (Fayod Sacc. et D. Sacc., *Telamonia subvolvata* Fayod in Ann. R. Acc. d'Agric. di Torino 1893, p. 97. — Pileo firmo subelastico, 4-8 cm. lato, centro carnoso, marginibus tenuibus, primo campanulato convexo badio helvolo, margine infracto e velo sericeo candido, mox pulvinato nitente, circa margi- 310

nem squamis albis secedentibus eleganter ornato; lamellis fulvo-cinnamomeis, rotundato-adnexis, apice angustatis subdistantibus, demum ferrugineis; stipite æquali, 5-8 cm. longo, 6-8 mm. lat., farcto, pallido, apice cortina (e sporis) ferruginea ornato, basi (ex velo generali) albo peronato-subvolvato; carne stipitis pileique alba; basidiis parum emergentibus, 4-sterigmaticis; sporis ferrugineis obovoideis, granulatis, 6 × 4.

Hab. catervatim in pratis salicetisque arenosis et humidis, Pinerolo Pedemontii.

6. **Cortinarius sublateritius** Peck Rep. of the State bot. 1900, p. 151. 311
— Pileo carnoso, 5-7,5 cm. lato, subconvexo v. fere plano, glabro, viscido, rubro; carne alba; lamellis planis, constrictis, stipatis, emarginatis, adnatis, pallidis dein cinnamomeis; stipite brevi, 3,5-6 cm. longo, 6-10 mm. crasso, æquali v. superne subconico, abrupte bulboso, farcto, sericeo, albido; sporis subellipsoideis, utrinque acutis, 10-12,5 × 5-6,5.

Hab. in silvis, Westport, Amer. bor. — *Cort. testaceo* Cooke affinis.

7. **Cortinarius obliquus** Peck in Rep. of the State Bot. 1901, p. 951, 312
tab. *L*, fig. 1-5. — Pileo carnosulo, 5-7,5 cm. lato, subconvexo v. fere plano, sicco, sericeo-fibrilloso, albido v. griseo, sæpe violaceo; carne albida; lamellis constrictis, stipatis, adnatis v. subrotundatis, acie minute crenulatis, obscure transverse striatis, violaceis dein cinnamomeo-brunneis; stipite æquali, solido, lucenti, sericeo-fibrilloso, albido et violaceo tincto dein violaceo, abrupte oblique bulboso, 5-7,5 cm. longo, 6-10 mm. crasso; sporis ellipsoideis, 1-nucleatis, 7,5 × 5.

Hab. inter folia, in silvis, Bolton, Amer. bor.

8. **Cortinarius nudipes** Earle in New York Bot. Gard. 1902, p. 343. 313
— Gregarius; pileo 5,5-6,5 cm. diam., convexo-expanso, obtuso, rufo-brunneo, lucenti, disco intense colorato, levi, viscido, margine integro subinflexo; stipite 5 cm., 8-10 mm. æqualiter vel leviter superne incrassato, albido, inferne levi, sordido, cavo; carne albida, in sicco fragili, odore saporeque grato; lamellis heterophyllis, adnatis, postice rotundatis, latiusculis, ad marginem angustatis, ochraceo-cinnamomeis (probabiliter initio pallidis); sporis ellipticis, levibus, 7 × 4 ochraceo-cinnamomeis; cortina fugaci.

Hab. in herbosis, Sanford University Californiæ.

9. **Cortinarius torvus** Fr. — Syll. V pag. 950. — Var. **nobilis** Peck 314
Rep. of the State bot. 1900, pag. 167. — Pileo carnoso, firmo,

convexo vel hemisphærico dein subconvexo v. fere plano, glabro, margine fibrilloso, violaceo v. griseo-violaceo dein griseo v. griseo rubro; carne griseo-alba, sub jove pluvio violacea; sapore grato; lamellis rubro-violaceis dein brunneo-cinnamomeis, distantibus, acie rotundatis; stipite variabili, longo vel brevi, æquali vel basi subincrassato, firmo, cortina alba obvoluto, interdum subannulato griseo, sæpe violaceo variegato.

Hab. gregarius vel subcæspitosus, Westport, Amer. bor.

10. **Cortinarius maculipes** Peck Rep. of the State Bot. 1900, p. 150. 315
— Pileo carnoso, 3,5-6 cm. lato, convexo dein subplano, glabro, tenaci glutinoso, rubro, dein pallido; carne albida; lamellis constrictis, stipatis, rotundatis, subadnatis albidis dein brunneis cinnamomeis; stipite æquali vel superne subconico, 5-7,5 cm. longo, 6-12 mm. crasso, subradicato, solido, farcto, sericeo-fibrilloso, squamoso maculato, sæpe subannulato; sporis ellipsoideis, 7,5-10 × 5-6.

Hab. in silvis in muscosis, Westport, Amer. bor.

11. **Cortinarius elatior** Fr. — Syll. V p. 917. — Var. **pallidifolius** 316
Peck Rep. of the State Bot. 1900, p. 151, tab. *G*, fig. 22-26. — Pileo carnoso, 2,5-6 cm. lato, convexo, dein subplano, interdum margine revoluto rugulosoque, viscido, subfusco dein ochraceo; lamellis constrictis, stipatis, adnatis vel postice subrotundatis, acie inæqualibus, pallidis dein ochraceis v. cinnamomeis; stipite æquali, solido, viscido, sericeo-tomentoso, albido, lilacino maculato, 5-7,5 cm. longo. 8-12 mm. crasso; sporis oblongo-ellipsoideis, 15-17,5 × 7,5-8,5.

Hab. in silvis, in foliis dejectis, Floodwood, Amer. bor.

12. **Cortinarius erythrojonipus** Fayod Sacc. et D. Sacc., *Hydrocybe* 317
erythrojonipoda Fayod in Ann. R. Acc. d'Agric. di Torino 1893, p. 96, Syn. *Ag. erythrojonipes* Fayod in Ann. de Sc. nat. VII ser., t. IX, p. 373. — Formosus, subhygrophanus; pileo conico, umbone excepto, pelliculoso dein expanso, acute umbonulato, 2-3 cm. lat., badio, adpresse bombycino, ad subcyaneum vergente; carne lilacina; lamellis adnatis, melleis, ventricosis (ordine lamellarum 13231) subconfertis; stipite firmo, 3-7 cm. alto, 2-3 mm. cr. ascendente, apice leniter tenuato, lilacino-nitenti, inferne cinnabarino e velo fibrilloso; basidiis 45 × 9, tetrasterigmaticis, parum emergentibus; sporis obovoideis, levibus vel subtiliter granulatis, 7 × 4.

Hab. gregatim ad terram inter Polytricha locis umbrosis, Chiesa della Tanna, Angrogna in alpibus Pedemontii, aut. — Cuticula pilei ex hyphis brevibus inflatis radiatim dispositis conflata.

subhymenium ramoso-pseudoparenchymaticum; cellulæ hymeniales clavatæ.

13. **Cortinarius squarrosus** Clements in Bot. Surv. Nebr. 1901, p. 11. 318
— Pileo carnoso, campanulato dein convexo, sicco, subumbonato, centro squarroso, squamis umbrinis, fibrilloso-fasciculatis, dense vestito usque ad marginem, umbrino-ochroleuco, 2,5-3 cm. diam.; stipite cavo, fibroso-carnoso, flexuoso, subæquali, subsquarroso, fibrillis umbrino-fulvis vestito, 3-4 cm. longo, 5 mm. crasso; lamellis leviter adnatis, ventricosis, interdum stipatis, fulvis vel umbrinis; fibrillis cortinæ umbrinis, fugacibus; sporis irregulariter ellipsoideis, levibus, eguttatis, 12 × 6.

Hab. in herbosis in silvis, Little Blue River, Nebraska, Amer. bor. — Adest forma minori; pileo 12 mm. lato, stipite 16 mm. longo, 2 mm. crasso.

14. **Cortinarius punctifolius** Peck Bull. Torr. Bot. Cl. 1903, p. 96. 319
— Pileo carnoso, margine tenui, convexo v. subplano, sicco, leviter fibrilloso et squamuloso, flavido-brunneo, subinde viridulotincto; carne flava; lamellis latis, subdistantibus, introrsum profunde et abrupte excavatis, adnexis v. subliberis, flavido-brunneis, viridi-tinctis dein cinnamomeis, flavo-punctatis; stipite subæquali, sæpe flexuoso vel irregulari, glabro vel leviter fibrilloso, striato, flavo, cyaneo-viridi-tincto; sporis late ellipsoideis vel subovoideis, 5-7 × 4-5.

Hab. ad terram silvaticam ad pedem Mt. Moscow, Idaho Amer. bor. (Henderson). — Pileus 2,5-6 cm lat., stipes 2,5-5 cm. long., 5-10 mm. cr. Lamellis flavo-punctatis mox dignoscitur. E sect. *Dermocybe.*

PAXILLUS Fr. — Syll. V p. 983, IX p. 135, XVI p. 111.

1. **Paxillus involutus** (Batsch) Fr. — Syll. V p. 987. — Var. **simplex** 320
Peck Rep. of the State bot. 1899, pag. 857. — A typo differt lamellis basi distinctis, nec crispatis, nec anastomosantibus

Hab. ad terram Minnewaska, Amer. bor.

PHÆOHYGROCYBE P. Henn. in Engl. Bot. Jahrb. 1901, p. 50, Syll. XVI, p. 1114 (Etym. *phaios* fuscus et *Hygrocybe*). In Tab. comp. p. 8 occupabit n. 119. — Pileus submembranaceo-ceraceus; hymenophorum cum stipite contiguum. Lamellæ acie acutæ, hymenio in massam ceraceam mutando vestitæ nec membranaceæ; basidia clavata, 4-sterigmatica; sporæ globosæ echinatæ, fuscidulæ.

1. **Phæohygrocybe Zenkeri** P. Henn. l. c. — Pileo membranaceo, ce- 321
raceo fragili, convexo expanso, centro depresso, umbilicato, granuloso, radiatim sulcato-subtuberculato, citrino, 1-3 cm. diam.; stipite fistuloso, tereti vel compresso, sulcato, flexuoso, levi, concolori, 2-3 cm. longo, 1,5-3 mm. crasso; lamellis adnatis subdecurrentibus, subdistantibus, ceraceis, crassis, basi venoso-connexis, citrinis, 2 mm. latis; basidiis clavatis, 20-25 × 9-12, sterigmatibus 4, subulatis, 6-9 μ. long., 1,5 μ. cr.; sporis globosis, dense aculeatis, flavo-fuscidulis, 8-11.

Hab. in ligno putri, Kamerun Africæ.

Sect. 4. Melanosporæ.

AGARICUS Linn. em. — Syll. V pag. 996, IX pag. 137, XI p. 69, XIV p. 150, XVI p. 113.

1. **Agaricus sphærosporus** Peck Bull. Torr. Bot. Cl. 1904, p. 181. — 322
Pileo carnoso, firmo, late convexo, leviter centro depresso, glabro, albido, cuticula subinde rimosa, margine primitus incurvo, demum irregulariter undulato; carne alba immutabili; lamellis tenuibus, confertis, postice rotundatis, attingentibus sed liberis, roseis, demum nigro-brunneis; stipite subæquali, crasso, firmo, solido, recto v. curvulo, albido, velo tenui albo, dein fracto, pileique margini stipitique adhærente, annulumque fimbriatum mox evanescentem formante; sporis globosis v. subglobosis, 7,5-8 × 6-7,5.

Hab. in solo humoso, Denver, Colorado Amer. bor. (Sterling). — Pileus 7-12 cm. lat.; stipes 3-10 cm. long., 2-3 cm. cr.

2. **Agaricus rutilescens** Peck Bull. Torr. Bot. Cl. 1904, p. 180. — 323
Pileo carnoso, firmo, convexo, margine incurvo, demum subplano, levi v. subrimoso et minute fibrilloso, sordide albo, demum ferrugineo, in sicco rubido-brunneo v. badio; carne albida, rupta rubescente; stipite æquali v. subæquali, firmo, farcto, sericeo, albo, vulnerato rubescente, sæpe abrupte bulboso; velo albo, sæpe pilei margini stipitique adhærente; sporis ellipsoideis 7-8 × 5-6.

Hab. ad terram humosam in pascuis, Denver Colorado Amer. bor. (E. B. Sterling). — *Ag. campestri* var. *rufescenti* affinis.

3. **Agaricus Sterlingii** Peck in the Torr. Bot. Club 1902, p. 73. — 324
Pileo carnoso, firmo, convexo vel interdum centro subdepresso, sericeo vel centro maculato squamoso, pallide brunneo vel griseo-brunneo, 5-12 cm. lato; carne brunnea v. alba; lamellis tenuibus,

confertis, liberis, pallide brunneis, dein maturitate brunneo-nigrescentibus; stipite æquali, solido, farcto albido, interdum supra annulum intensius concolori, 2-5 cm. longo, 8-12 mm. crasso; cortina tenui, margine pilei stipitique adhærente; sporis subellipticis, 6-8 × 4.

Hab. cæspitosus ad terram, New Jersey, Amer. bor. (E. B. Sterling).

4. **Agaricus microspermus** P. Henn. in Engl. Bot. Jahrb. 1901, p. 52, sub *Psalliota*, Syll. XVI p. 1114 (nomen). — Pileo carnoso, campanulato expanso, pallido dein griseo-violaceo, atro-brunneo, medio obtuso umbonato, margine levi, 5-9 cm. lato; stipite tereti, farcto, fibroso, pallide cinereo, 5-8 cm. longo, 3 mm. cr., annulo membranaceo pallido; lamellis subliberis, pallidis cinerescentibus dein atro-brunneis, confertis, lanceolatis; sporis ellipsoideis, atro-brunneis vel atro-purpureis, 4-5 × 3, uniguttulatis. 325

Hab. ad terram, Kamerun Africæ.

5. **Agaricus cretacellus** Atkinson in Journ. of Mycol. 1902, p. 110. — Gregarius 5-8 cm. altus, pileo 4-7 cm. lato, albo, convexo-expanso, crasso, levi, subviscido, interdum maculis minutis luteolis consperso; carne alba, interdum roseo tincta; lamellis angustis, 3-6 mm., liberis, diu albis dein roseis, lateraliter griseo-brunneis dein nigrescentibus; sporis 4-5 × 3; stipite 6-10 mm. crasso, basi incrassato, albo, solido, supra annulum levi, subtus minute scabroso; annulo persistenti, albo, superne levi, in pag. inferiore floccoso; sapore odoreque amygdalino ut in *Ag. arvensi* Schaeff. 326

Hab. in silvis, Cascadilla creek, Ithaca, N. Y. Amer. bor.

6. **Agaricus rimosus** (P. Henn.) Sacc. et D. Sacc., *Psalliota* P. Henn. F. Indiæ orient. II, in Hedw. 1901, pag. 331. — Pileo carnoso, campanulato-expanso, obtuso, centro rugoso-fusco, pallido, radiatim fusco-badio striato rimoseque squamuloso, 3-8 cm. diam.; stipite fistuloso, tereti striato, fusco-brunneo, 3-8 cm. long, 0,5-1 cm. cr., basi incrassato, annulo amplo membranaceo-squamoso; lamellis liberis, confertis, lanceolatis, angustis ex pallido badiis; sporis ellipsoideis, 4-7,5 × 3, rufo-brunneis. 327

Hab. ad terram, Saharanpur-Garden Indiæ orient.

7. **Agaricus Woodrowii** Massee in Kew. Bull. 1901, p. 151. — Pileo subgloboso, glabro, primitus levi dein centro rimoso-areolato, ex albido fuscescenti, 3-5 cm. lato; carne 1 cm. lata, fuscescenti; lamellis confertis, liberis sed approximatis, umbrinis; stipite ventricoso, albido, deorsum fuscescenti, glabro, 3-5 cm. longo, annulo 328

supero, evanescenti donato; sporis ellipticis, glabris, umbrinis, 8 ≈ 5.

Hab. ad terram, Poom, prov. Bombay Indiæ britannicæ. — Edulis, *Ag. silvatico* Schaeff. affinis.

8. **Agaricus solidipes** Peck Bull. Torr. Bot. Cl. 1904, pag. 180. — 329
Pileo carnoso, firmo, convexo, squamoso v. rimoso, albo v. albido, margine involuto; carne alba, immutabili, sapore dulci; lamellis crebris, liberis, e rubello dein sepiaceis, demum brunneo-nigricantibus; stipite brevissimo, æquali v. uno apice tenuato, glabro, solido, albo v. albido; velo albo tenui, sæpe margini pilei omnino adhærente; sporis ellipsoideis, 8-10 ≈ 5-6.

Hab. in pascuis, Colorado Amer. bor. — Pileus 2-7 cm. lat.; stipes 2-4 cm. long., 6-10 mm. cr. Pileo squamoso, margine involuto sæpeque appendiculato, stipiteque solido brevi facile dignoscenda species.

9. **Agaricus comosus** (P. Henn.) Sacc. et D. Sacc., *Psalliota* P. Henn. 330
F. Indiæ or. II, in Hedw. 1901, pag. 331. — Pileo carnosulo ex ovoideo-campanulato dein explanato, vertice obtuso umbonato, rugoso-comoso, squamis obscurioribus membranaceis, adpressis, farinoso, albido, rubescente, 1-3 cm. diam.; stipite fistuloso, cylindraceo æquali, usque ad 5 mm. longo, 1-3 mm. cr., farinaceo, pallido dein rufescente; annulo membranaceo, pallido, evanescente; lamellis liberis, confertis, lanceolatis, usque ad 2 mm. latis, pallidis dein atris; sporis ellipsoideis, fusco-brunneis, 5-6 ≈ 3,5-4.

Hab. ad terram, Saharanpur-Garden, Indiæ orient.

10. **Agaricus exstinctoriiformis** Borszcz. in A. Th. Middendorf-reise in 331
den äussersten Norden und Osten Sibiriens, Band. I, Eh. 2, St. Petersburg 1850, p. 144. — Pileo carnoso, e conico hemisphærico-umbonato, levi, viscoso, ochraceo-fulvescente; lamellis subliberis angustis, nigro-fuscis; stipite subfistuloso, glabro, basi in bulbum oblongum desinente, sursum supra annulum laceratum, patulum albo-pulverulento.

Hab. in locis graminosis, ad fl. Uda in Sibiria. — Pileus junior exacte conicus, adultus conico-hemisphæricus v. potius hemisphæricus acute umbonatus, tenuis, levis, viscosus, 27 mm. latus, 14-16 mm. altus, ochraceo-rufescens, immutabilis! Lamellæ vix 2-2,5 mm. latæ subliberæ, nigro-fuscæ. Stipes 5-7 cm. alt., 4-5 mm. cr. subfistulosus, sat tenax, passim flexuosus amœne cinnamomeus, basi bulbo oblongo instructus, apice dilute cinnamomeus v. pallidus albo-pulverulentus. Annulus laceratus subfugax, reflexo-patulus,

albidus. Insignis videtur; ab *Agar. luteonitenti* Fl. Dan. bene diversus.

11. **Agaricus cothurnatus** Peck Bull. Tor. Bot. Cl. 1904, p. 181. — 332
Pileo carnoso, convexo, margine involuto, sicco, glabro v. margine minute pulverulento, calceo-albo, carne alba; lamellis confertis, liberis, ex castaneo nigricantibus; stipite subæquali, albo, basi fibris radicalibus copiosis obsito, veloque albo, annulum caliciformem sursum laceratum formante, cincto; sporis subglobosis, 8-9 × 7-8.

Hab. in terra humosa juxta vias Denver, Colorado, Amer. bor. (E. B. Sterling). — Lamellis iditio theobrominis, stipiteque basi subvaginato species mox dignoscitur.

12. **Agaricus nanus** (Massee) Sacc. et D. Sacc., *Psalliota* Massee in 333
Kew. Bull. 1901, pag. 152. — Pileo e convexo explanato, levi, glabro, sicco, albido, 1-2 cm. lato; lamellis confertis, angustis, adnexis, purpureo-brunneis, acie integris concoloribus; stipite 3 cm. longo, vix 1 mm. crasso, fistuloso, candido; sporis ellipsoideis, levibus, purpureo-brunneis, 9 × 7.

Hab. ad terram Poona, prov. Bombay Indiæ Britannicæ (Woodrow). — *P. obtusato* Fr. affinis.

13. **Agaricus pusillus** Peck Rep. of the State Bot. 1900, p. 152. — 334
Pileo carnoso, fragili, convexo dein plano, interdum subdpresso v. centro subumbilicato, floccoso-fibrilloso, pallide griseo-brunneo maculis ferrugineis vel luteis consperso, centro intense brunneo, 1-5 cm. lato; carne albida, odore saporeque amygdalino; lamellis angustis, adnatis, liberis, subventricosis, fragilibus, initio griseis dein roseis, postremo brunneis; stipite 12-24 mm. longo, 2-6 mm. crasso, æquali, superne sæpe incrassatulo, inferne bulboso e farcto cavo, subfibrilloso, albo; annulo interdum evanescente; sporis late ellipticis vel subglobosis, 5 × 3.

Hab. in pratis fertilibus, Delhi, Amer. bor. (S. Sherwood).

STROPHARIA Fr. — Syll. V p. 1012, IX p. 138, XI p. 70, XIV p. 151, XVI p. 119.

1. **Stropharia hypholomoides** P. Henn. in Engl. Bot. Jahrb. 1901, 335
p. 52, Syll. XVI p. 1114 (nomen). — Pileo carnoso, campanulato convexo, obtuso, cinereo-flavo, levi, glabro, centro brunneolo, margine pallido, 3-6 cm diam., stipite fistuloso, tereti, levi, 4-8 mm. longo, 4-5 mm. cr., pallido, annulo membranaceo, albido; lamellis adnatis, confertis, pallide flavis dein atro-violaceis; sporis ellipsoideis v. ovoideis, 5,5-7 × 3,5-4, atro-violaceis, levibus.

Hab. ad radices arborum, Kamerun Afr.

2. **Stropharia coprinophila** Atkinson in Journ. of Mycol. 1902, p. 118. 336
— Cæspitosa, 3-7 cm. alta; pileo 2-6 cm. lato, convexo-expanso, interdum margine elevato, carnoso, 2-3 mm. crasso, margine tenui, sordide albo, tenuissime floccoso, sæpe multis squamis vestito, margine appendiculato; lamellis adnatis, subsinuatis, 4-6 mm. latis, griseis vel intense brunneis, margine albis; sporis nigrescentibus v. subpurpureis, ovato-oblongis v. ellipsoideis, levibus, 7-8 × 3,5-4,5; basidiis clavatis, 30-35 × 6-8, 4-sporis; cystidiis clavatis vel subventricosis, 60-65 × 10-12; stipite carnoso, 6-15 mm. crasso, farcto, cavo, æquali vel sæpe basi incrassatulo, albido, fibroso-striato, floccoso; annulo delicatulo.

Hab. in Coprini atramentario parasitica, Ithaca Flats, N. Y. Amer. bor. et in St. Paul, Minnesota, Amer. bor. — Sapor *Coprini atramentarii*.

3. **Stropharia lepiotoides** P. Henn. in Engl. Bot. Jahrb. 1901, p. 52. 337
Syll. XVI, p. 1115 (nomen). — Pileo carnosulo, ex ovoideo campanulato, cinereo-flavescente, radiato-striato, levi, centro umbonato, fusco-brunneolo, 2-4 cm. diam.; stipite farcto, pallido brunnescente, striatulo, 3-6 cm. longo, $1^1/_2$-2 cm. cr., medio annulo membranaceo, amplo, albido; lamellis adnatis, confertis, lanceolatis, primo pallidis dein nigrescentibus; sporis ellipsoideis, levibus, brunneo-violaceis, 5-7 × 4.

Hab. ad folia putrida, Kamerun Afr.

4. **Stropharia psathyroidea** P. Henn. F. Indiæ or. II, in Hedw. 338
1901, p. 330. — Pileo submembranaceo, convexo explanato, apice obtuso, levi, glabro, pallide brunneo, margine obsolete striato, 3-3,5 cm. diam.; stipite cavo, tereti, æquali, levi, glabro, stramineo, annulo membranaceo-floccoso, lacerato, fugaci, 6-7 cm. longo, 3-4 mm. crasso; lamellis sinuoso-adnatis, fusco-brunneis, 1-1,5 mm. latis; sporis ellipsoideis, fusco-purpureis, levibus, 5-6,5 × 4.

Hab. ad terram, Saharanpur-Garden Indiæ orient.

5. **Stropharia magnivelaris** Peck in Harrim. Alaska Exped. Crypt. 339
p. 44. — Pileo convexo demum subplano, interdum umbonato, glabro v. obscure radiato-fibrilloso v. fibrilloso-squamuloso, fibrillis innatis, sicco ochraceo-fulvo; lamellis subconfertis, maturis brunneo-nigricantibus; stipite longo, gracili, glabro, solido, basi incrassatulo, albido; annulo late membranaceo, albo, persistente; sporis ellipsoideo-oblongis, 14-16 × 7-8.

Hab. ad terram, Yakutat, Alaska (Trelease). — Pileus 2-3 cm.

lat., stipes 5-7 cm. long., 2-4 mm. cr. Annulo amplo, firmo, albo mox dignoscenda species.

6. **Stropharia grisea** P. Henn. Fung. S. Paulens III, p. 204 (Hedw. 1904). — Pileo carnosulo, convexo-campanulato. obtuso, griseo, subnitenti, levi, glabro, margine striatulo, centro obscuriori, 1 1/2-2 cm, diam.; stipite subfistuloso, tereti, pallido, levi, glabro, annulo membranaceo, persistenti, albido; lamellis adnexis, confertis, inæquilongis, ventricosis, pallidis dein fusco-cinnamomeis; sporis ellipsoideis, fusco-atris, 1-guttulatis, levibus, 4-5 × 3. 340

Hab. ad fragmenta vegetabilia putrida, Serra da Cantareira St. Paulo Brasiliæ. — Affinis *Str. inunctæ* affinis, sed satis diversa.

7. **Stropharia rhombispora** v. Höhnel in Annales Mycol 1902, I, p. 393. — Pileo applanato-convexo, umbone deficiente, membrana detrahenda, lutescenti-brunneo, levi, paullum glutinoso, imprimis versus marginem squamulis albis, furfureo-fibrillosis, cito evanescentibus, adnatis obtecto, circ. 15 mm. alt., 4-5 mm. alto, tenuiter carnoso, intus consistentia tenaci et brunnescente, parte pilei marginali albido-floccosa, vix inflexa; stipite cavo, tenaci, brunneolo-carnoso, cylindrico, plerumque curvato, supra annulo exiguo, squamoso-floccoso instructo, brunneolo, undique indumento albido, fibrilloso-microsquamoso obtecto, infra tantum leviter incrassato, non radicante. 30-40 mm. long., 2-3 mm. crasso; stipitibus plerumque binis vel paucis conjunctis ex hypharum tomento, membranam albam formante, orientibus; lamellis haud approximatis, remotiusculis, ad 2 mm. lat., plano-adnatis, vix emarginatis, cum dentibus decurrentibus, brunneolis sed paulum in colorem violaceum vergentibus, acie alba, tenuiter crenulata; sporis acervatis nigro-violaceis, singulis pellucido-violaceis, plerumque 6-7 µ. long., 5-6 µ. latis, 3 µ. crassis, applanato-rhomboideis, subcordatis, supra papilliferis, infra cuneatis; cystidiis solum in lamellarum margine evolutis, rigidis, filiformibus, infra paullo latioribus ibique anguste conicis vel leviter clavatis, apice obtusiusculis. 341

Hab. in foliis dejectis, siccis Fagi in silvis ad pedem montis Wexen et ad montem Rehgrabenberg dictum, Wiener Wald Austriæ inferioris.

8. **Stropharia Staudtiana** P. Henn. in Engl. Bot. Jahrb. 1901, p. 51. — Syll. XVI, p. 1114 (nomen). — Pileo subcarnoso, campanulato-expanso, pallide brunneo, obtuso-umbonato 1-2,5 cm. diam., striatulo; stipite fistuloso, gracili, tereti, 5-10 cm. longo, 1-2 mm. cr., pallido, striatulo, annulo amplo membranaceo, persistente, al- 342

bido; lamellis adnatis, confertis, pallidis dein fuscescentibus; sporis ellipsoideis, atro-rufis, levibus 5,5-7,5 × 4-4,5.

Hab. ad terram, Kamerun Afr.

9. **Stropharia depilata** Pers. Syn. p. 408. — Syll. V, p. 1012.

Hab. quoque ad truncos Pini silv. et Betulæ, in Polonia. — Species hæc *Strophariæ æruginosæ* Curt. proxima, a qua in statu sicco specimina minora vix distinguenda. Statura tamen generatim multo major et etiam spora differt, quæ subamygdaliformis, apice truncata, 10-12 × 5-6 ½. Specimina vidi pileo 14 cm. lato, stipite 15 cm. longo, apice 3-4 cm. crasso, infra annulum pulcre albo-squamuloso (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 71).

10. **Stropharia siccipes** Karst — Syll. V, p. 1022. — var. **radicata** Peck in Rep. of the State botanist, 1902, p. 37. — A typo differt stipite longe radicato. 343

Hab. in horto botanico. New York, Amer. bor. (F. S. Earle).

HYPHOLOMA Fr. — Syll. V p. 1027, IX p. 139, XI p. 71, XIV p. 152, XVI p. 121.

1. **Hypholoma californicum** Earle in New York bot. Gard. 1902, p. 344. — Dense cæspitosum; pileo subtili, 5-5,5 cm. diam. convexo, dein expanso et subumbonato, intense brunneo, levi, hygrophano, margine integro, in sicco obscuro striato; pileo 7-10 cm., 4-5 mm., æquali, glabro sed raro irregulariter inflato, sordido, albido et maculis brunneis consperso, cartilagineo, cavo, fragili, sæpe fisso; carne pallide brunnea, colore saporeque grato; lamellis adnatis vel subliberis, leviter ventricosis, pallide brunneis; sporis intense rubro-brunneis, oblongo-ellipticis 5-6 × 3; cortina albida, fibrillosa; fibrillis ad marginem confertis. 344

Hab. ad basim truncorum Quercus in silvis prope Palo Alto Californiæ.

2 **Hypholoma pecosense** Cockerell in Journ. of Mycol. 1904, p. 108. — Pileo leviter convexo, centro subconico, 2,5-4 cm. diam., margine subverticali, levi, viscidulo, numquam squamoso v. sericeo, cremeo-albo, centro subochraceo, sed semper pallido, margine ex veli residuis flavido-squamuloso; lamellis pallide griseo-purpureis, postice albidis, acie albo-furfuracea; stipite 5-9 cm. longo, flavido-albo, v. pallidissime ochraceo ob lamellas leviter decurrentes summo apice striatulo, et albo-furfurello, ceterum glabro nitidulo, sursum fistuloso; carne dulci, colore immutabili; sporis purpureo-brunneis, dein omnino atris, ovoideis, 12 × 8. 345

Hab. ad terram, Pecos, New Mexico (M. Grabham).

3. **Hypholoma pseudostorea** (W. G. Smith) Sacc. *Agaricus pseudostorea* W. G. Smith, Journ. of Bot. 1903, p. 386. — Pileo convexo obtuso v. subumbonato, dein expanso, carnoso, initio purpureo-brunneo, centro obscuriore, mox in squamas latas purpureo-brunneas fibrillosas diffracto, sub squamis ex albo fulvello; stipite cavo æquali v. deorsum attenuato, primitus levi dein sericeo-brunneo-fibrilloso, sursum albo, infra pallide flavo; lamellis adnatis, albis, dein roseis, demum brunneis v. purpureo-brunneis, non plorantibus; sporis 5-7 × 2,5-3. 346

Hab. in silvis, sub Laricibus etc. in Britannia. — Vulgo cæspitosum, rarius solitarium; sapor parum gratus, tenuis; odor fortis nauseosus. *H. lacrimabundo* affine.

4. **Hypholoma aggregatum** Peck — Syll. XI, p. 71. — var. **sericeum** Peck in Rep. of the State botanist 1901, p. 965. — Pileo sericeo-fibrilloso, squamis maculisque destituto. Cetera ut in typo. 347

Hab. in silvis, North Bolton, Amer. bor.

PSILOCYBE Fr. — Syll. V pag. 1043, IX p 140, XI p. 72, XIV p. 154, XVI p. 124.

1. **Psilocybe tristis** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 330. — Carnosula; pileo campanulato dein expanso, centro subumbonato, obtuso, obscuriori, radiato-striato, velutino-squamosulo, 5-8 cm.; stipite sæpe late compresso, levi, glabro, pallide brunneo 10-13 mm. longo, 1-1,5 mm. cr; lamellis liberis vix confertis ca. 1 mm. latis, utrinque attenuatis, fusco-cinnamomeis; sporis oblique ovoideis, basi apiculatis, 4 × 3-3,5, fuscis. 348

Hab. ad terram, Saharanpur-Garden Indiæ orient

2. **Psilocybe citrina** Massee in Kew Bull. 1901, pag. 162. — Pileo primo subgloboso, margine stipite contiguo subinvoluto, dein campanulato-expanso, submembranaceo, levi, glabro, læte citrino, 3 cm. lato; lamellis confertis, attenuato-annexis, lætis, purpureo-brunneis; stipite tereti, levi, glabro, pileo concolori, 4 cm. longo, 3 mm. crasso; sporis oblique ovoideis, glabris, purpureo-brunneis 7 × 4. 349

Hab. ad terram in horto botanico, Aburi, Gold Coast Africæ occident.

3. **Psilocybe unicolor** Peck Rep. of the State bot. 1899, p. 845. — Pileo tenui, subconvexo, hygrophano, striatulo, brunneo, in sicco pallide brunneo vel albicante 12-20 mm. lato; carne alba, sapore 350

ingratulo; lamellis constrictis, tenuibus, stipatis, adnatis, brunneis dein intense coloratis; stipite brevi, recto vel curvo, æquali, glabro, cavo vel farcto, brunneo, 16-24 mm. longo, 2 mm. crasso; sporis brunneis, ellipsoideis 6 × 3,3.

Hab. in truncis dejectis, in silvis, Savannah, Amer. bor. — *Ps. camptopodi* affinis.

4. **Psilocybe tuberosa** Karst. Fungi novi Loennb. 1904, p. 2 (Finska 351
Vetensk. Soc.). — Pileo carnosulo, conico-campanulato, demum convexo-explanato glabro, striato (siccitate sæpe sulcato), sicco fulvo, circiter 2 cm. lato; stipite subæquali, fistuloso, glabrescenti, vulgo sulcato scissoque, pallescenti, 5-6 cm. longo, circiter 2 mm. crasso; lamellis adnexis, confertis sat angustis, fuscis.

Hab. in nemore prope oppidum Ufo Rossiæ, Junio 1902. Legit cl. J. G. Oksanew. — Species singularis. Pilei ut plurimum complures e tubere albido terræ immerso enati.

PSATHYRA Fr. — Syll. V pag. 1060, IX p. 142, XI p. 73, XIV p. 154, XVI p. 126.

1. **Psathyra conica** Peck Rep. of the State bot. 1900, p. 153, tab. *H*, 352
fig. 17-22. — Pileo tenui, conico, raro convexo, glabro, hygrophano, intense brunneo, in sicco pallide ochraceo, 8-12 mm. lato; lamellis latis, stipatis, adnatis, albo-pallidis, dein maturitate intense brunneis, margine albo-flocculosis; stipite filiformi, cavo, sericeo-fibrilloso, brunneo, 2,5-3,5 cm. longo, 1 mm. crasso; sporis ellipsoideis, 5-6 × 4.

Hab. in truncis emortuis Abietis, Floodwood, Amer. bor.

2. **Psathyra musicola** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. 353
XXVIII, p. 36. — Pileo carnosulo, excentrico, convexo dein subresupinato, pallido, griseo-fuscescente, levi, glabro, pruinoso, 2-4 mm. diam.; stipite excentrico, brevi, curvulo, 2-3 mm. longo, 0,5-0,7 mm. cr., pallido, levi, basi albido-byssino; lamellis sinuoso-adnatis, vix decurrentibus, subconfertis, inæquilongis, ventricosis, primo pallidis, dein atrofuscis; sporis ellipsoideis, basi oblique apiculatis 1-guttulatis, flavo-brunneis, fuscis 6-6,5 × 4-4,5.

Hab. in foliis Musæ sapientum. Usambara (Kummer).

COPRINUS Pers. — Syll. V pag. 1078, IX p. 144, XI p. 75, XIV p. 156, XVI, p. 128.

1. **Coprinus semianus** Pat. Bull. Soc. Mycol. 1904, p. 53. — Solita- 354
rius v. aggregatus; pileo carnoso ovoideo vel cylindraceo, apice

rotundato-obtuso, albido, squamis crassis adpressis flavo-ochraceis sursum consperso; lamellis latis, inæqualibus, albis dein nigris; sporis coacervatis brunneo-flavidis, sub microscopio flavo-fuligineis, ovoideis v. subglobosis, 8-10 × 6-8; stipite sursum carnoso, deorsum indurato subligneo, albido, cylindrico, levi, parce minuteque adpresse squamuloso, basi sensim bulbosa radicante; annulo et volva nullis.

Hab. in alveis pr. Laghonat Algeriæ (Cap. Sem). — 7-12 cm. alt., stipes basi 2 cm., sursum 10 mm. cr. *C. ovato* et *C. imbricato* proximus, sporis rotundioribus aliterque coloratis distinguendus.

2. **Coprinus dryophilus** Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. 355
de France T. XVIII, 1902, fasc. I. — Pileo campanulato convexo, luteo-citrino, centro rubro-pallido, carnoso 4-7 cm. lato, squamis distantibus rubris consperso, margine striato; lamellis stipatis, nigris; sporis ovoideo-citriformibus, sub microscopio brunneis, levibus 10-12 × 7-8; stipite tenaci cylindraceo, basi attenuato, concolore, striatulo, paullo squamoso, cavo.

Hab. cæspitosus in truncis Quercus El Feidia Algeriæ.

3. **Coprinus miniato-flexuosus** Bres. et Pat. in Lloyd Myc. Not. n. 6, 356
1901, p. 49. — Pileo submembranaceo ex ovoideo campanulato, fulvello, rimoso-sulcato, squamulis miniatis eleganter obsito, glabrescente, 1,5-3 cm. lato; lamellis ex albido fuscis, postice ex adnato liberis; stipite cavo subconcolore, 3-5 cm. longo, 3-5 mm. cr.; sporis ellipsoideis, 5-7 × 4-4,5, fulvis, binucleatis, nucleis flavis.

Hab. ad terram in insula Samoa Polynesiæ.

4. **Coprinus pseudo-domesticus** P. Henn. in Engl. Bot. Jahrb. 1901, 357
p. 51. — Syll. XVI, p. 1115 (nomen). - Pileo submembranaceo, ex ovato campanulato-obtuso, vertice subdiscoideo, pallido, carnosulo-incrassato, umbilicato, fusco, radiatim striato-sulcato, cinereo, margine fisso 1,5-4 cm. diam.; stipite cavo, cylindraceo albo, levi, glabro 2-8 cm. longo. 5-8 mm. cr. d. mycelio filiformi repente brunneolo oriente; lamellis subcollariato-adnatis confertis, subcinereis dein atris; cystidiis cylindraceo-clavatis 30-40 × 18-20; sporis ellipsoideis, fuscis, levibus, 4-5 × 3 6.

Hab. ad terram, Kamerun Afr.

5. **Coprinus Chaignoni** Patouill. in Bull. Soc. Myc. de France 1903, 358
fasc. 3, p. 246. — Subcæspitosus; pileo tenui, carnosulo, ex ovato conico-expanso, campanulato dein explanato, striato sulcato, velo universali ochraceo, furfuraceo, sub lente squamuloso-imbricato,

margine evanescenti, apice persistenti tecto; stipite albido, gracili, basi e volvæ residuis ochraceis cupulato; lamellis angustis, atris; sporis ovoideis, nigrescentibus, 10 × 5.

Hab. ad terram arenosam Bir m' Chegga Algeriæ (Cl. De Chaignon). — Affinis *C. cinerato*. Pileus 15–20 mm. lat., 6–10 mm. alt.; stipes 2 cm. longus.

6. **Coprinus straminis** E. B. Copeland, Ann. Mycol. 1904, p. 2, f. 4. 359
— Pileo ovoideo v. ellipsoideo, dein conico, 2-5 cm. lato, sulcato-striato, disco levi 1 cm. lat., vulgo stramineo rarius brunneolo v. albo, demum nigro, minute tomentoso diu continuo, dein deliquescendo inter lamellas fisso, pellicula medio 2 mm. cr.; lamellis confertis, 2-5 mm. latis, adnatis; stipite 3-8 cm. alto, 4-5 mm. cr., uniformiter levi, albo, basi subincrassato obsolete volvato, annulo nullo; cystidiis 90 × 40; sporis 12-14 × 7–8, nigris.

Hab. in stramine vetusto putri, Stanford University, California, vere.

7. **Coprinus alnicola** E. B. Copeland, Ann. Mycol. 1904, p. 2, fig. 5. 360
— Pileo campanulato-conico, 3–7 mm. lato, 3–5 mm. alto, sulcato-striato, glabro, albo v. brunneolo, dein sensim nigricanti fragili; lamellis paucis, adnatis; stipite evolvato, 2-5 cm, alto, 1-2 mm. cr., cavo; cystidiis nullis; sporis atro-brunneis, coacervatis nigricantibus, 7 × 3-3,5.

Hab. ad truncos et ramos emortuos dejectos, præsertim Alni rhombifoliæ Stanford University Californiæ vere.

8. **Coprinus fuscosporus** E. B. Copeland, Ann. Mycol. 1904, p. 2, 361
fig. 2-3. — Pileo cupuliformi, crassiusculo, 6 cm. circ. diam. et 4 cm. alt., pellicula 1-2 mm. cr., aquoso brunnea, striatu, squamuloso-furfuracea; lamellis stipiti adhærentibus, dein liberis, 7 mm. et amplius latis; stipite 8-14 cm. alt., 1 cm. cr., subcartilagineo et extus submucoso, basi subincrassato et volva rudimentali cincto; cystidiis 120-130 × 50 oculo nudo conspicuis; sporis ovoideis, 7-8 × 4, atro-brunneis, non nigris.

Hab. in cineribus ligneis in Arboreto Stanford University, California, vere.

9. **Coprinus Stanfordianus** E. B. Copeland, Ann. Mycol. 1904, p. 1, 362
f. 1. — Pileo tereti-ovoideo, demum conico-campanulato, margine demum elevato, secundum lamellas profunde fisso, centro 2–4 mm. cr., primitus sericeo, ad strias rufo-brunneo; lamellis 3-5 mm. lat. liberis, acie alba, brunneo-rubentibus, demum nigris; stipite cylindraceo 12-20 cm. alto, cavo, albo, sericeo, basi vix dilatato

et volva adhærente margine vero libera et lobulata; sporis ovoideis 10-15 × 8-9, levibus, nigricantibus; cystidiis nullis.

Hab. ad terram in arboreto Stanford University, California, vere. — *Copr. comato, sterquilino* et *calyptrato* affinis, sed notis datis sat diversus.

10. **Coprinus Gibbsii** Massee et Crossl., The Naturalist, 1902, p. 1. — 363
Pileo minuto, 0,5 cm. diam., hemisphærico dein expanso, striato, glabro, pallide ochraceo, disco obscuriori; lamellis adnatis, 5-7-confertis; sporis subcircularibus, compressis, levibus, rubro-brunneis 8-9 μ. diam., 5 μ. cr.; cystidiis subpiriformibus 40 × 25; stipite 4-7 mm. longo, tenuissimo, albo, pellucido, glabro, basi mycelio albido obvoluto.

Hab. in fimo equino prope Sheffield, in Britannia (T. Gibbs). — *C. radiato* Berk. affinis.

PANÆOLUS Fr. — Syll. V p. 1118, IX p. 147, XI p. 77, XIV p. 161, XVI p. 134.

1. **Panæolus albellus** Massee in Bot. Tidsskrift-Copenhagen 1902, 364
vol. 24, p. 216. — Pileo carnosulo e convexo-campanulato, expanso, livido, dein albello, glabro, 2-3 cm. lato; lamellis confertis, postice attenuato-adnatis, fuliginosis; sporis ellipsoideis utrinque apiculatis, atro-fuscis 20 × 10; stipite e farcto cavo, sursum attenuato, fibrilloso, pubescente, pallido, 7-10 cm alto.

Hab in fimo bubalino, Siam Asiæ merid. — *Pan. campanulato* L. affinis.

2. **Panæolus alveolatus** Peck Rep. of the State bot. 1900, pag. 153, 365
tab. *H*, fig. 30 36. — Pileo tenui, fragili, fere convexo, glabro, hygrophano, intense brunneo, in sicco griseo-brunneo alveolato 16-24 mm. lato; carne brunnea; lamellis latis, stipatis, adnatis, subventricosis, nigrescentibus, acie albis; stipite æquali, filiformi, cavo, glabro, apice subpruinoso, pallido 3,5-7,5 cm. longo, 2-4 mm. crasso; sporis nigris, subellipsoideis 12,5-14 × 7,5-10.

Hab. in fimo, in silvis, Floodwood, Amer. bor.

3. **Panæolus Regis** De Seym. in Bull Soc. Myc. de France 1901, 366
p. 209, tab. VIII *bis*, f. 1 (ex Delile). — Pileo albo-fuscescente, conico expanso, demum plano, glabro, non omnino levi, carnosulo-membranaceo, zona marginali striato-undulata, coronam regularem fingente, 3-4 mm. lata, senio nigricanti ornata; lamellis fuligineo-nigris, 4 mm. latis, ventricosis, confertis, adnatis, lamellulis intermixtis, sub zona marginali pilei insertis; sporis . . . ; stipite

pallescente, levi, fistuloso, fibrillis albis farcto, sub pileo incrassato, 3-4 cm. longo, bulbilloso, radicula insititia, usque 3-5 cm. longa.

Hab. ad terram tritam in horto botanico Montpellier Galliæ (Delile Iconogr. ined.).

PSATHYRELLA Fr. — Syll. V p. 1126, IX p. 149, XI p. 77, XIV p. 162.

1. **Psathyrella fragilis** Earle in New York Bot. Gard. 1902, p. 344. 367
— Gregaria; pileo fragili, subtili, 4-8 mm., subconico, late convexo, brunneo-griseo, dein maturitate pallide griseo, disco intensius concolori, minute furfuraceo, profunde radiato-sulcato usque ad marginem; stipite filiformi 2-3 cm., 0,8-1 mm., æquali vel superne paullo incrassato, albido et levi, inferne minute furfuraceo, pallide griseo cartilagineo, cavo; carne albida; lamellis subliberis, heterophyllis, subdistantibus, ventricosis, pallide griseis, maturitate paullo nigrescentibus; sporis hyalinis, in massa obscurioribus, oblongo-ellipticis, 1-vacuolatis, 8-9 × 4-5.

Hab. in foliis dejectis Pini, Stanford University Californiæ. *Psath. disseminatæ* Pers. affinis.

2. **Psathyrella subtilis** (Fr.) Quél. — Syll. V, p. 1135.

Hab. ad fimum, etiam in Polonia. — Sporæ sub micr. fusco-rufæ, oblongæ, apice subtruncatæ, 7-8 × 3; basidia clavata 15-18 × 6-7; cystidia fusoideo-ventricosa, utrinque valde attenuata, 28-32 × 9-10. A *Psathyrella disseminata,* cui valde affinis, differt statura graciliori, pileo potius striato quam sulcato; sporis aliquantulum longioribus et strictioribus, cystidiis fusiformibus et matrice. In *Psath. disseminata* sporæ 6-7 × 3 1/2-4 et cystidia clavata vel ventricosa, apice tantum umbonata. Pili pilei in utraque specie identici (Bresadola Fungi Polonici, in Ann. Mycol. 1903, p. 72).

GOMPHIDIUS Fr. — Syll. V p. 1137, XI p. 68, XIV p. 164, XVI p. 136.

1. **Gomphidius flavipes** Peck Rep. of the State bot. 1900, pag. 153, 368
tab. I, fig. 1-4. — Pileo convexo vel fere plano, viscido, centro minuto tomentoso, margine sericeo-fibrilloso, fusco-roseo, 20-24 mm. lato; lamellis arcuatis, decurrentibus, distantibus, albis; stipite æquali vel superne sæpe constricto, basi attenuato, solido, subfibrilloso, superne albido, alibi pallide luteo intus et in cute

3,5-6 cm. longo, 6-8 mm. crasso; sporis oblongo-fusiformibus, 22,5-30 × 6-7,5.

Hab. in silvis, Westport, Amer. bor.

MONTAGNITES Fr. — Syll. V p. 1140, XI p. 79. XVI p. 137.

1. **Montagnites Candollei** Fr. — Syll. V, pag. 1140. — f. **minor** P. 369
Henn. in Hedw. 1901, p. 98. — Volva lacerata; stipite 2-3 cm. longo, 3 mm. ca. lato, levi v. vix lineis distincto, leviter sericeo; pileo 2-2,5 cm. diam., disco ca. 1-1,5 cm. lato; sporis ellipsoideis 5-8 × 4-6, levibus, nigris.

Hab. in arenosis in Ægypto. — Var. **coprinoides** P. Henn. Hedw. 1901, p. 98. Syll. XVI, p. 1115 (nomen): pileo subcylindraceo, campanulato, dein convexo-plano, ca. 4 cm. alto, 5-6 cm. lato, disco depresso ca. 3 cm. lato, pallido, brunneo-maculato; lamellis liberis, dense radiatis, persistentibus, utrinque obtusis, ca. 0,6-1 cm. latis, atris; stipite æquali cylindraceo 4-5 cm. longo, 1-2 cm. cr., intus spongioso-farcto, dein cavo, fibroso-sericeo, extus squamoso-fibroso, albo, basi velato, volva ampla, membranacea, lacerata; basidiis late clavatis ca. 20-25 × 10, 2-4-sterigmaticis; sporis ellipsoideis v. late ellipsoideis, primo pallidis, dein atris 7-11 × 4-6. — In arenosis Biskra, Algeria.

Fam. 2. Polyporaceæ Fr. *).

BOLETUS Dill. — Syll. VI p. 2, IX p. 150, XI p. 79, XIV, p. 164, XVI p. 138 **).

1. **Boletus sardous** Belli et Sacc. in Bull. Soc. Bot. It. 1903, p. 225. 370
— Pileo convexo, pulvinato, firmo, demum molli et expanso, sub-

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*) Cfr. elaboratam monographiam Polyporearum americanarum, incohatam in Bull. of Torr. Bot. Cl. 1903-1904 a cl. W. A. Murrill, ubi tamen plura nomina generica vetusta, indefinita, heterogenea omnino inusitata iterum et perperam sunt restaurata. Iconographiam phototypicam, cum analysi, omnium perdifficilis familiæ specierum a cl. Murrill avide exoptamus.

**) Cfr. cl. Ch. E. Martin monographiam absolutam, eximiis iconibus exornatam, *Le Boletus subtomentosus de la région genevoise*, Berne, 1903, ubi quam plurimae formæ speciei proteiformis diligentissime illustrantur.

viscoso (humectato), fusco-ferrugineo vel fusco-rubescenti, levi nec squamuloso nec granuloso; stipite exannulato, pallide luteolo vel flavescenti-stramineo, punctato-granuloso, subsquamuloso, basi constanter bulboso; tubulis adnatis, luteo-sulphureis, interdum subvirescentibus, sub vitro irregulariter ellipticis; sporis subfusoideo-oblongatis, luteolis 14-16 × 5-7.

Hab. in planitie totius insulæ Sardiniæ ad radices Cisti monspeliensis. — A *B. granulato* Fr. et *B. badio* Fr. differt præsertim stipite basi constanter bulboso, squamuloso et magnitudine sporarum.

2. **Boletus scabripes** Peck in Bull. Torr. Bot. Club 1902, XXIX, 371
p. 555. — Pileo crasso, late convexo, firmo, sicco, glabro, rufo-brunneo; hymenio convexo; tubulis adnatis v. leviter depressis circa stipitem, brunneis; poris minutis rotundis saturatioribus; stipite obtuso, æquali, solido sed intus spongioso, griseo-albido, verruculis copiosis punctiformibus, prominulis, nigris consperso; sporis oblongo-fusoideis, 12-15 × 4-5.

Hab. ad terram humosam silvaticam Mont Desert Amer. bor. — Pileus 15 cm. lat.; stipes 10 cm. long., 2-3 cm. cr. *B. scabro* affinis sed verruculæ stipitis copiosiores et adhuc minores.

3. **Boletus Ridleyi** Massee in Kew Bull. 1901, p. 154. — Pileo con- 372
vexo-plano, levi, glabro, citrino, 2-3 cm. alto; carne alba, lutescenti, sapore dulci; tubulis flavo-virentibus, stipiti adnatis, 3-4 mm. longis; sporis angulatis, amplis; stipite solido subæquali, glabro, supra annulum evanescentem albo, infra citrino, 4 cm. longo, 5-7 mm. crasso; sporis flavo-viridibus, 7-8 × 5.

Hab. ad terram, Singapore, Malacca (Ridley). — *B. chrysentero* Fr. affinis.

4. **Boletus purpureus** Fr. — Syll. VI, pag. 35. — var. **fumosus** 373
Peck Bull. Torr. Bot. Cl. 1902, vol. 29, p. 554. — A typo differt pileo fumoso-brunneo; carne cremea, tactu cyaneo-virescente; tubulis flavido-viridulis, poris minutis brunneo-rubellis, tactu cyaneo-virescentibus; sporis 10 × 5.

Hab. in silvis Mt Desert Amer. bor. — Pileus 4-14 cm. lat.; stipes 4-12 cm. long., 1-2,5 cm. cr.

5. **Boletus pedemontanus** Fayod in Ann. Acc. d'Agric. di Torino 1893, 374
p. 103. — Pileo primo pulvinato, sicco stipiteque amœne carneo v. cupreo; carne alba leniter cyanescente; stratu tubulifero libero, poris minutissimis tubulisque flavo-pallidis, deinde pileo (præcipue locis umbrosis) plus minusve lateritio, cute diffracta areolata vel

squamosa, stipiteque levi concolori; cystidiis hyalinis, dispersis, parvis, piliformibus; sporis pallidis 12 × 4.

Hab. solitarius ad terram apricam in quercetis Bricherasio, Roche-plate Pedemontii.

6. **Boletus velatus** (Rostr.) Sacc. et D. Sacc., *Suillus velatus* Rostr. 375
in Bot. Tidsskrift-Copenhagen 1902, vol. 24, pag. 207. — Pileo convexo-plano, rufo-fusco, rimoso-granuloso, 4 cm. lato, margine velo crasso, stellatim fisso ornato; tubulis liberis; poris amplis, angulatis; stipite cylindrico, gracili, levi, 5-6 cm. 0,5-1 cm.; sporis hyalinis, ellipsoideis, apiculatis, sæpe obliquis.

Hab. ad terram, Siam Asiæ merid.

7. **Boletus hygrophanus** (Rostr.) Sacc. et D. Sacc. *Suillus hygrophanus* 376
Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207. — Pileo albo, hygrophano, convexo-plano, initio piloso-squamoso, dein glabro, 2-3 cm. lato; stipite gracili, flexuoso, sursum fibroso squamoso, 5-6 × 2-3 cm., cartilagineo, albo, nitido; tubulis liberis; poris mediis inæqualibus, sinuosis; sporis hyalinis, ellipsoideis, 9-10 × 5.

Hab. ad terram, Siam Asiæ merid.

8. **Boletus Rostrupii** Syd. Ann. Mycol. 1903, p. 177, *Boletus lacuno-* 377
sus Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207 nec Otth nec Massee. — Pileo e pulvinato expanso, glabro, levi, alutaceo 4-5 cm.; tubulis liberis, mediis, dilute fuscis; stipite gracili, elongato, cylindrico v. sursum attenuato, profunde arcolato-lacunoso, annulato, 10-12 cm. longo; sporis ferrugineis, fusiformibus 13-15 × 6-7.

Hab. in arbore cava, Siam, Asiæ merid.

9. **Boletus costatus** Rostr. in Bot. Tidsskrift-Copenhagen 1902, v. 24, 378
p. 207. — Pileo dilute fusco, hemisphærico-pulvinato, levi, glabro, 2 cm. lato; stipite ventricoso, utrinque attenuato, sursum profunde costato-lacunoso, inferne obsolete reticulato, 4-5 × 2 cm., basi curvato; tubulis levibus, liberis; poris minutis; sporis oblongis, ferrugineis, subtiliter striatis 18-20 × 6-8.

Hab. ad terram, Siam Asiæ merid.

10. **Boletus changensis** (Rostr.) Sacc. et D. Sacc., *Suillus changensis* 379
Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 207. — Pileo convexo-plano, rubro, levi, glabro, 2-3 cm. lato; stipite gracili, cylindrico, sæpe compresso, basi incurvo, crassiore; tubulis adnatis; poris mediis sulphureis; sporis hyalinis, oblongis 9 × 4; carne secta cyanescente.

Hab. ad terram, Siam Asiæ merid.

11. **Boletus chrysenteron** Fr. — Syll. VI, p. 14. — var. **albocarneus** 380
Peck Rep. of the State bot. 1900, p. 185, tab. 76, fig. 21-25. — Pileo carnoso, superne convexo, sicco, subglabro, rufescenti 2,5-6,5 cm. lato; carne alba, sæpe in superficie rubro tincta; tubulis longiusculis, adnatis, stipitem versus subdepressis, griseo-luteis, acie subrotundis, levibus; stipite æquali, firmo, subglabro, pileo concolori, intus albo, 2,5-5 cm. longo, 4-8 mm. crasso.

Hab. ad terram, Amer. bor. Edulis. — Var. **deformatus** Peck in Rep. of the State botanist 1901, p. 966: pileo tenui 2,5-4 cm. lato, irregulari, rubro vel brunneo-rubro; stipite brevi, sæpe irregulari, ventricoso, latitudine et crassitudine æquali. — In terra uda, Bolton, Amer. bor.

12. **Boletus granulatus** L. — Syll. VI, p. 5. — var. **albidipes** Peck 381
Rep. of the State bot. 1900, pag. 168. — A typo differt, carne pilei albida, sed in proximitate tubulorum luteola; stipite intus et in cute albo.

Hab. in pinetis, Westport, Amer. bor.

13. **Boletus Betula** Beardslee ap. Lloyd Mycol. Not. 1902, n. 10, Se- 382
ptemb. p. 97, cum icone. — Pileo firmo hemisphærico-convexo, rufo-tomentoso vel squamuloso, sæpe rimoso, rubro vel flavido-rubro; carne firma, flavida; tubulis adnatis circa stipitem plerumque depressis, sordide flavis vel flavido-viridibus; poris latiusculis; stipite longo æquali vel sursum attenuato, reticulato-asperato.

Hab. in silvis, in planitie Asheville frequens, Amer. bor. — Pileus 5–7 cm. latus, stipes 10–25 cm. long., 7-15 mm. crassus.

14. **Boletus Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 44. — 383
Syll. XVI, p. 1115 (nomen). — Pileo carnoso, convexo-plano, pruinoso, atro-castaneo, levi, glabro, 2-3 cm. diam.; stipite cylindraceo, farcto, atropurpureo v. atro-brunneo, striatulo v. subsquamuloso 3-5 cm. longo, 4-6 mm. cr., superne subattenuato; tubulis adnatis subdecurrentibus, 2-5 mm. long., poris rotundato-angulatis ca. 1-1,5 mm. amplis, acie integris, luteis; basidiis clavatis, intus brunneo-granulosis, 24–28 × 12-15; sporis ellipsoideis v. ovoideo-subfusoideis, utrinque obtusis, castaneis v. atro-brunneis, 1-guttulatis, levibus, 12–15 × 8-13.

Hab. in silvis, Kamerun, Afr.

15. **Boletus umbrosus** Atkinson in Journ. of Mycol. 1902, p. 112. 384
— Pileo convexo dein expanso 5-9 cm. lato, carnoso, subtomentoso, dein areolato ut in *B. subtomentoso,* brunneo dein isabellino;

carne albida dein brunneola; tubulis convexis, initio albis dein pallide brunneis, postremo intense brunneis; stipite concolori 7–8 cm. alto, irregulariter longitudinaliter canaliculato-rugoso, minutissime intense punctulato, basi conico, breviter radicato.

Hab. ad terram, Caynga Lake Amer. bor. (C. H. Kauffman).

16. **Boletus Dupainii** Boud. in Boll. Soc. Myc. de France 1902, n. 2, tab. *F*, fig. 1. — Pileo carnoso, convexo, luteo ochraceo, non tomentoso, sed glutine, in junioribus, rubro-sanguineo, dein evanescente, omnino tecto, 7-10 cm. lato; tubulis elongatis, olivaceo-lutescentibus, liberis, ore sanguineo, versus marginem luteo-aurantiacis; stipite pleno, crasso, sæpius subbulboso, luteo, non reticulato sed punctis rubris, crebris tecto, ad apicem luteo-aurantiaco ad extremam basim olivascente; carne, etiam stipitis, pallide luteâ, sapida, non amara et præcipue circa tubulos cærulescente; sporis oblongis, olivascentibus, intus guttulosis, 14-15 × 5-7. 385

Hab. in silvosis, ad terram calcareo-argillosam prope La Mothe-St-Heray Galliæ.

17. **Boletus chamæleontinus** Atkinson in Journ. of Mycol. 1902, p. 112. — Pileo convexo, crasso, 8-10 cm. lato, subtomentoso vel minute subfloccoso e latere leviter rimoso-areolato ut in *B. scabro,* brunneo; carne albo-lutea, dein rubra vel violacea; tubulis convexis, stipitem versus depressis, initio luteolis dein rubescentibus, maturitate acie rubris, tenuibus, rotundatis vel irregularibus, tactu cyaneis; sporis sub lente olivaceo-luteis, elliptico-oblongis, 12-15 × 4-5, levibus; stipite superne rubescenti, reticulato vel punctulato (ut in *B. lurido*), æquali vel basi subincrassato; carne centro lutea, externe rubra, tactu cyanea. 386

Hab. in silvis, Ithaca, N. Y. Amer. bor.

18. **Boletus Bakeri** Tracy et Earle in Plantæ Bakerianæ fasc. I fungi p. 23. — Pileo 10-20 cm. diam., convexo, rubro-lateritio vel roseolo lucenti, viscido, maturitate areolato; carne albida, aeri exposita rubescente; tubulis initio albidis, repletis, planis, dein ventricosis, brunneis, purpureo-cinctis, profunde sinuatis; stipite firmo, inferne incrassatulo, 3-4 cm. cr., superne abrupte conico, 1,5-2 cm. cr., 8-12 cm. long., solido, intus albo, externe albido, superne squamulis brunneis asperso, inferne levi. 387

Hab. ad terram, Cicken Creek et La Plata, South Colorado, Amer. bor.

19. **Boletus ater** P. Henn in Engl. Bot. Jahrb. 1901, pag. 44. — Syll. XVI, p. 1115 (nomen). — Pileo carnoso convexo-explanato, 388

sublevi, glabro, pruinoso, atro-violaceo v. atro-olivaceo 2,5-3,5 cm. diam.; stipite farcto, tereti fusco-atro, granuloso 2,5-3 cm. longo, 2,5-3 mm. cr.; tubulis sinuoso-adnatis interdum subdecurrentibus 2-3 mm. long., poris oblongis v. rotundato-angulatis subgyrosis 1-1,5 ≈ 1-2 mm. amplis, atro-cinereis, basidiis clavatis 4-sterigmaticis, intus fusco-granulatis; sporis fusoideis utrinque acutiusculis, 1-pluriguttulatis 12-14 ≈ 5-6, episporio fuscidulo; carne atra.

Hab. ad terram in silvis, Kamerun Afr.

20. **Boletus multipunctus** Peck in Rep. of the State botanist 1901, 389
pag. 952. tab. *K*, fig. 19-22. — Pileo carnoso convexo vel subplano, sicco brunneo-ochraceo sæpe leviter rubro-tincto, centro maculis multis punctiformibus, minutis donato 7,5-12,5 cm. lato; carne albida, sapore grato; tubulis tenuibus adnatis vel stipitem versus depressis, acie subrotundis, initio albidis, dein griseo-luteolis; stipite æquali vel superne conico, pallido, firmo, fibroso-striato 7,5-12,5 cm. longo, 8-16 mm. crasso; sporis intense olivaceo-griseis, oblongis 11-15 ≈ 3-5.

Hab. in silvis, Bolton, Amer. bor.

21. **Boletus griseus** (Quél.) Sacc. et D. Sacc. *Gyroporus griseus* Quél. 390
Assoc. franc. l'Avanc. d. Scienc. 1901, partie II, 1902, p. 495. — Pileo convexo, 5-10 cm. lat., pruinoso, griseo, interdum albo-griseo-marmorato; carne crassa, tenera, alba, sub aere leviter violaceo-fusco-tincta, in stipite virescente, sapidissima; tubulis longis porisque rotundis albis dein griseis; stipite elongato, sat crasso, albido, squamulis cinereis punctato; sporis ellipsoideo-oblongis, 10-15 μ. longis, guttulatis, citrinis.

Hab. in silvis arenosis Galliæ, æstate autumno. Videtur species intermedia inter *B. scabrum* et *B. rufum*.

22. **Boletus Torrendii** Bres. Myc. Lusitanici novi, in Atti R. Acc. 391
di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 130. — Pileo pulvinato, purpureo-brunneo vel castaneo, sicco, levi, dein areolato-rimoso, rimis luteis, 8-12 cm. lato; tubulis flavis; stipite ex parte adnatis; poris oblongis, acie obtusa, e flavo rubiginoso-brunneis; stipite solido, ventricoso-fusiformi, flavo, deorsum rubro-maculato, pruinato, haud reticulato, 4-7 cm. longo, 1,5-4 cm. in parte ventricosa crasso, subradicato; carne lutea, fracta ad pileum cærulescente, ad apicem stipitis demum rubescente, odore grato, sapore miti; sporis luteis, subcylindraceis 6-7 ≈ 3-3,5; basidiis clavatis 20-25 ≈ 7; cystidiis fusoideis 34-36 ≈ 8-9.

Hab. ad terram in pinetis pr. Setubal Lusitaniæ. – *Boleto ru-*

bello Krombh. proximus, sed statura majori, sporis minoribus etc. bene distinctus.

23. **Boletus albidus** (Romagnoli) R. Maire Bull. Soc. bot. de France 392
1901, tom. I, p. 243, tab. XIV, fig. 1 et 2, *Ceriomyces albidus* Romagnoli Ined. — Pileo convexo, circulari, levi, albo 7 cm. diam.; stipite albo, levi, crasso, basi bulboso, annulato, 10 cm. longo; carne alba: tubulis roseis vel rubro-pallidis, non decurrentibus; sporis roseis?

Hab. ad terram, Pontcprato prope Bastia, Corsica (Romagnoli 1840!).

STROBILOMYCES Berk. — Syll. VI p. 49, IX p. 159, XI, p. 81.

1. **Strobilomyces excavatus** (Kalchbr.) P. Henn. F. Austral. II, p. 187. Huc, teste Henn. l. c., spectant *Secotium excavatum* Kalchbr. et *Strobilomyces pallescens* Cooke et Massee. Cf. Syll. VII, p. 55 et IX, p. 159. — Lectus quoque ad Tovamba Queenslandiæ a cl. Hartmann.

FISTULINELLA P. Henn. in Engl. Bot. Jahrb. 1901, p, 43. — Syll. XVI, p. 1115 (nomen) (Etym. a *Fistulina*, cui affinis). — Pileus carnosus, stipitatus, margine velato-membranaceo, involuto. Hymenium porosum; tubuli cylindracei inter se subliberi et separati. Pileus et stipes Boleti, hymenium Fistulinæ.

1. **Fistulinella Staudtii** P. Henn. l. c. pag. 44. — Syll. l. c. — Pi- 393
leo carnoso, convexo plano, levi, glabro, olivaceo-virescenti, l. 5 cm. diam., margine membranaceo veliformi, involuto, pallido; stipite centrali, tereti, farcto, carnoso, levi, glabro, albo, ca. 3 cm. longo, 2,5-3 mm. cr., æquali; hymenio pallido, sublibero; tubulis inter se subliberis et discretis c. 3 mm. longis, 350-400 μ. cr, primo apice clausis dein poro rotundato apertis; basidiis clavatis intus granulosis 20-30 × 5-7; sporis fusoideis 1-2-guttulatis, hyalinis 13-16 × 3,5-4, episporio dilute brunneo.

Hab. in lignis putridis, Kamerun Africæ.

POLYPORUS Mich. em. Syll. VI p. 55, IX p. 161, XI p. 82, XIV p. 171, XVI, p. 142.

1. **Polyporus variiporus** Murrill Bull. Torr. Bot. Cl. 1904, p. 37. — 394
Pileo orbiculari convexo-depresso, 1-2,5 × 0,1-0,2 cm., extus gla-

bro, plus minus radiatim striato, concentrice subrugoso, straminco-isabellino circa marginem fulvo-castaneo, margine tenui inflexo, undulato, subtiliter sed fugaciter ciliato; contextu 1–1,5 mm. cr. molli, albo; tubulis 0,5 mm. longis, valde irregularibus prope stipitem elongatis nec distincte decurrentibus, flavidis, polygoniis v. sublamellatis, acie firma integra, demum denticulatis v. fimbriatis; sporis ellipsoideis, levibus, hyalinis, 7 × 4; stipite centrali, cavo, sursum incrassato, pileo paullo dilutiore, subglabro, sericeo-nitidulo, 2 cm. longo, 2–6 mm. cr., ima basi tomentosa, sæpe nigra.

Hab. ad fragmenta lignea sabulo immersa, Porto Rico (Earle). — Affinis *P. tricholomati* sed firmior, stipite crassiore, poris magis irregularibus.

2. **Polyporus Penningtonii** Speg. Myc. argent. ser. II, 1902, p. 52. — 395
Leucoporus; pileo orbiculari e convexulo leniter umbilicato, levissimo, tenui, 50 mm. diam., submembranaceo, margine acuto integro, recto, superne castaneo nitidulo; hymenio pallidiore cum pileo concreto; poris majoribus 0,2 0,3 mm. long., 0,3-0,5 mm. diam, rotundato subhexagonio, dissepimentis tenuibus mollibus, acie minute denticulatis, marginem versus sensim brevioribus tenuioribus evanescentibus, in margine ipso subnullis sterilibusque; stipite subconcolore, centrali v. vix subexcentrico, tereti 25 mm. longo, 6-8 mm. diam., intus sordide albo, levi v. vix ruguloso, glabro.

Hab. ad truncos putres Erythrinæ crista-galli, Paranà-Guazú in Argentina (S. Pennington). — Species pulcra ad *Favolum* nonnihil vergens.

3. **Polyporus læticolor** (Murr.) Sacc. et D. Sacc., *Scutiger læticolor* 396
Murrill in Bull. Torr. Bot. Club. 1903, p. 428. — Pileo orbiculari centro depresso 10 × 10 × 1 cm., extus glabro, lateritio vel purpureo, margine acuto, initio inflexo, irregulariter undulato; contextu carnoso firmo, pallide roseo, homogeneo 0, 75 cm. crasso; tubulis 1–2 mm. long. in quoque millimetro 5, decurrentibus, saturate aurantiacis, poris subcircularibus vel polygoniis, sepimentis tenuibus serius dentatis (præcipue decurrentibus); sporis ovoideis, levibus, hyalinis, copiosis, 5–6 × 4; stipite brevi, crasso sursum incrassato 2 × 1–2,5 cm., pileo concolore, solido, firmo, carne obscuriore.

Hab. ad terram in Alabama, Amer. bor. (Underwood).

4. **Polyporus subradicatus** (Murrill) Sacc. et D. Sacc. *Scutiger sub-* 397
radicatus Murrill Bull. Torr. Bot. Cl. 1903, p. 430. — Pileo irregulari convexo v. plano, 12 cm. lat., 0,5 cm. cr., superficie fi-

brilloso avellaneo-isabellino, margine tenuissimo, juniori inflexo, maturo irregulariter undulato; contextu carnoso-molli, 1–7 mm. cr., pure lacteo, etiam in sicco; tubulis initio foveolaribus, maturis brevibus et minutis, vix 1 mm. alt., 3–4 in quoque mm., usque ad partem atratam stipitis decurrentibus, albis, siccis flavidis, ore polygonio, regulari, demum subirregulari, acie tenui tandem denticulata v. fimbriata; sporis ovoideo-ellipsoideis, levibus, hyalinis, non copiosis, 5–7 × 3–4; stipite brevi, crasso, centrali, deorsum tenuato, nigro-fuligineo 4 cm. long., 2,5 cm. cr., contextu lacteo, carnoso-firmo, extus minute tomentoso, sicco rugoso-reticulato.

Hab. ad terram, London Canada (Dearness) et New York (Overacker). — Subsimilis *P. radicato.*

5. **Polyporus Whiteæ** (Murr.) Sacc. et D. Sacc. *Scutiger Whiteæ* Mur- 398
rill, Bull. Torr. Cl. 1903, p. 432. — Pileo subcirculari, convexo, centro depresso, 8–10 cm. lat., 0,5–1 cm. cr., pruinoso velutino, ex isabellino fulvo, margine acuto, initio inflexo, maturitate inæqualiter undulato; contextu carnoso, sicco roseo, prope tubulos atro-rubro; tubulis 10-30 mm. long., 3 in quoque mm., valde decurrentibus, albis, tactis vetustisque roseis ore subcirculari, acie tenui, fimbriata; sporis ovoideis, hyalinis, levibus, copiosis, 5 × 3,5; stipite brevi, solito excentrico, basi dilatato, 3 cm. long., 2–4 cm. cr. concolore.

Hab. inter muscos ad ripas, Bor Harbor Maine Amer. bor. (Miss V. White). — Cæspitosus, pileo flavido-brunneo, tubis albis dein roseis dignoscendus. Affinis *P. ovino.*

6. **Polyporus Puiggarianus** P. Henn. F. St. Paul. III, p. 200 (Hedw. 399
1904). — Pileo carnoso-spongioso, mesopode, infundibuliformi, omnino ferrugineo, superne subproliferante tuberculato-lobato, rugoso, velutino, ca. 10 cm. lato, 7 cm. longo, 2–3 cm. crasso; stipite centrali, farcto subcylindraceo, compresso, ferrugineo pruinoso, deinde nitenti, fragili, corticato, 4–5 cm. longo, 1–1 $^1/_2$ cm. crasso; tubulis sinuoso-adnatis, 5-8 cm. longis, poris rotundato- vel oblongo-angulatis, laceratis, ferrugineis; sporis subglobosis v. ovoideis, 10-14 μ. verrucosis, ferrugineis; carne spongiosa, ferruginea usque ad 2 cm. crassa.

Hab. ad terram (radices?) St. Paulo Brasiliæ (Puiggari). — Affinis *P. sistotremoidi* et *P. tubuliformi,* sed sporis brunneis verrucosis etc. distinctus.

7. **Polyporus marmellosensis** P. Henn. F. Amaz. I, p. 178 (Hedw. 400

1904. — Pileo subcarnoso lento, convexo, medio umbilicato, castaneo, subnitenti, radiatim substriato, levi, glabro, ca. 5 cm. diam., margine sinuoso-crenato vel lobato-inciso, lobis triquetris, 2-3 mm. longis; stipite centrali, subtereti, lignescenti, ferrugineo-tomentoso vel squamuloso ca. 7 cm. longo, 3 mm. crasso, poris decurrentibus rotundato-polyhedricis, ca. 1 ½-2 mm. amplis, pallide ferrugineis, acie tenuibus integris; sporis globosis, 3-3½ μ. hyalino-fuscidulis.

Hab. ad terram silvaticam, Rio Madeira ad Marmellos Amazoniæ (Ule). — *P. arcularioi* affinis, poris valde amplis faviformibus dignoscendus.

8. **Polyporus Cowellii** Murrill Bull. Torr. Bot. Cl. 1904. p. 39. — 401
Pileo orbiculari, convexo-plano, umbilicato, 1-2 cm. lat., 0,2-0,5 mm. cr., extus subglabro, minute concentrice rugoso e stramineo isabellino, demum saturatiore et hygrophano, prope marginem pustuloso v. levi, sæpe leviter lineis albis v. brunneis radiato-striato prope centrum; margine tenuissimo, recto v. inflexo, sæpe ambitu irregulari, tenuiter denticulato, dentibus in cilia productis; contextu tenuissime membranaceo albo-pallido subtranslucido; tubulis 0,2-0,4 mm. long., 3-6 in quoque mm., confluendo crassioribus, adnatis, pallidis, polygonis, acie tenuissime subintegra dein fimbriatula; sporis ellipsoideis, levibus, binucleatis, 5 × 2,5; stipite centrali, solido, gracili, æquali, concolori vel paullo saturatiore, pruinoso v. glabro, levi, longitrorsum striato 2-3 cm. long., 0,3-1 mm. cr., intus molli, lacteo.

Hab. ad truncos emortuos in insula St. Kitts (Britton et Cowell et in Porto Rico Heller). — Pileo fere translucido, agaricoideo dignoscenda species.

9. **Polyporus maculosus** Murrill, Bull. Torr. Bot. Cl. 1904, p. 41. — 402
Pileo irregulariter orbiculari, profunde depresso, 3-3,5 × 0,1-0,2 cm. extus tenuiter et dense tomentoso, radiatim striato, isabellino, maculis pluribus læte fulvis v. castaneis præcipue inter centrum marginemque sitis ornato, margine tenuissimo, striato, irregulariter fisso, nec dentato nec fimbriato, contextu 0,5-1,5 mm. cr., suberoso-molli, pallido; tubulis 0,2-0,4 mm. long., 6-7 in quoque mm., decurrentibus, pallidis v. flavidis, subcylindraceis, acie integra; sporis ovoideis, hyalinis, levibus, 4 × 3 (immaturis visis); stipite centrali, solido, ligneo, sursum tenuato, basi castaneo flavo-pustuloso, inæquali, subglabro, 2 cm. longo, 2-4 mm. cr.

Hab. ad ligna in America centrali (C. L. Smith). — *P. fisso* affinis, sed minute tomentoso, maculoso etc.

10. **Polyporus holocyaneus** Atkinson in Journ. of Mycol. 1902, p. 117. 403
— Gregarius, 5-7 cm. altus; pileo in sicco intense brunneo vel rufo-brunneo, in statu juvenili rufo vel violaceo-amethystino, 2-6 cm. lato, convexo-expanso, maturitate depresso, margine plus minusve irregulari undulatoque, hygrophano, levi; stipite æquali, superne reticulato, 4-8 mm. crasso, pileo concolori; tubulis latiusculis, angularibus vel irregularibus, margine lacerato-fimbriatis violaceis dein griseo-brunneis; basidiis clavatis 20-25 × 5-6, 4-sporis; sporis hyalinis, levibus, crasse 1-guttulatis, 4-5 × 3-4.

Hab. inter acus Coniferarum, ad terram, Blowing Rock N. C., Amer. bor.

11. **Polyporus Gœtzei** P. Henn. in Engl. Bot. Jahrb. 1901, p. 255, 404
Sacc. Syll. XVI, p. 1115. — Pileo subcarnoso-spongioso, convexo, vertice late umbonato, concentrice zonato sulcatoque, cute rimosa squamulescente isabellina, in sicco pallide cinerea, subsericea, ca. 12-14 cm. diam., margine interdum crenato v. subsinuoso; hymenio plano, subferrugineo, tubulis longis, adnexis haud decurrentibus, poris rotundato-angulatis ca. 1-2 mm. diam., acie subintegris, ferrugineis; carne albida; basidiis clavatis, 16-20 × 8-10; sporis subglobosis, ovoideis v. ellipsoideis, 6-9 × 5-8, episporio dilute flavido; stipite tereti, farcto, basi interdum proliferanti 4-6 cm. longo, 1, 5 mm. crasso, subvelutino, alutaceo e sclerotio, subgloboso, tuberoso, contextu albido, carnoso-fibroso, superficie subareolato, rimoso, sulcato, corticato, ca. 7 cm. diam. oriente.

Hab. ad terram, in silvis Unyika, Afr. orient.

12. **Polyporus Puttemansii** P. Henn. F. S. Paul. III, p. 200 (Hedw. 405
1904). — Pileo e lento subcoriaceo, mesopode, convexo explanato, centro paulo depresso, pallido gilvescente, margine substriato, alutaceo, ca. 2 1/2 cm. diam., 2-2 1/2 mm. crasso, contextu albido; stipite centrali farcto cylindraceo, atro, ferrugineo tomentoso, 3-4 cm. longo, 2-3 mm. crasso, tubulis sinuoso-adnatis, ca. 2 cm. longis, pallidis, poris 1-3 mm. amplis, oblongo- vel rotundato-polyhedricis, acie subfimbriatis; sporis oblongo fusoideis hyalinis, 2-guttulatis, 12-15 × 3 1/2-4.

Hab. ad truncos Iponemæ St. Paulo Brasiliæ. — Ab affini *P. eleganti* consistentia, poris latioribus angulosis sporisque diversus.

13. **Polyporus scutellatus** Borczcz. in A. Th. Middendorf-reise in den 406

äussersten Norden und Osten Sibiriens, Band I, Th. 2, St. Petersburg 1850, p. 144. — *(Mesopus; Biennes).* Pileo coriaceo-membranaceo orbiculari plano, disco depresso umbilicato, alutaceo-pallido velutino-sericeo zonato radiatim striato; stipite fragili subtomentoso rufo deorsum incrassato; poris rufo-ferrugineis 5-6-gonis tenuibus, demum denticulato-laceris.

Hab. ad lacum Mar-kel, ad terram et ad fluv. Ujans (var. β) in Sibiria. — Pileus 1-1 $^3/_4$ mm. latus, tenuis, margine tenuissimo demum lacerato, eleganter zonatus striatusque, alutaceo-pallidus velutinus, villo sericeo canescenti sparso immixto, senilis sordide cinerescens. Stipes 25 mm. alt., 4-6 mm. crassus, fragilis. Pori rufo-ferruginei 5-6-goni, interdum confluentes. — Var. β. **ramosus**: pileis 2-3 stipitatis, stipite communi brevi, crasso suffultis. Ad *Polyp. parvulum* Klotzsch., boreali americanum non parum accedit.

14. **Polyporus marasmioides** (Pat.) Sacc. et D. Sacc. *Melanopus marasmioides* Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902 — Pileo orbiculari, tenui, molli, integro, convexo-plano, centro profunde umbilicato, ochraceo, glabro, margine obsolete striato, sulco levi circulari peripherico notato, margine recto, acuto, fulvo, pellucido, angusto, puberulo, denticulato; stipite centrali, cylindrico, brunneo-nigro, farcto, intus albo, tenaci, lignoso, fasciculis setulosis, rigidis hispido; hymenio ochraceo, poroso-reticulato; poris latis radiantibus, parum profundis, sepimentis crassis et duris divisis, integris vel denticulato-laceris (irpicoideis), zona marginali sterili, angusta; sporis hyalinis ovoideo-oblongis, 10 × 4, guttulatis. 407

Hab. ad semina putrida Meliosmæ Hebertii in Guadalupa et in trunco Citharexyli in insula Martinica (Duss). — Stipes 1 cm. long., interdum usque 10-15 cm. et tunc *Xylariam* simulans. *Favolo melanopodi* proximus.

15. **Polyporus tunetanus** (Pat.) Sacc et D. Sacc. *Melanopus tunetanus* Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. de France T. XVIII, 1902, fasc. I. — *(Melanopus).* Carnoso-coriaceus, stipitato-mesopus; pileo convexo, ochraceo-pallido, in sicco rubro, squamis latis, distantibus, concoloribus consperso, margine fibrilloso et deinde fisso, ad centrum rimoso; carne firma albida; poris albis, dein rubro-pallidis, angulosis, permagnis, usque ad 50-80 mm. decurrentibus, integris, membrana subtili divisis; sporis cylindraceis 6-8 × 3, hyalinis; stipite centrali, elongato, summo apice reticulato deinde velutino, albido, basi nigro v. rubro-nigro. 408

Hab. in lignis emortuis Ericæ et Arbuti, El Feidja-Algeria.

16. **Polyporus flexipes** Fr. Epicr. p. 432. — Syll. VI, pag. 69. — 409
var. **myriensis** P. Henn. F. Amaz. I, p. 177 (Hedw. 1904). — Cæspitosus; pileo tenuissime membranaceo, sicco subtranslucente fragili, mesopode, infundibuliformi, alutaceo, levi glabroque 0,5-3 cm. diam.; stipite subtereti, æquali, levi, glabro, brunneolo, 3-6 cm. longo, 0,5-1 $^1/_2$ mm. crasso; poris planis subrotundato-polyhedricis, ca. 0,2-0,3 mm. diam., acie integra, pallida; sporis subglobosis, hyalinis, ca. 2 μ.

Hab. ad truncos putrescentes, Rio Juruá, Juruá-Miry Amazoniæ (Ule). A typo videtur differre pileo tenuissimo, translucido, non scrobiculato etc.

17. **Polyporus lithophylloides** Har. et Pat. Champ. rec. au Japon in 410
Bull. du Museum d'hist. nat. 1902, n. 2, pag. 129. — *Merisma.* Pileo carnoso, fragili, convexo 15 cm. lato, 6 cm. alto, cavernoso, pileolis numerosis, liberis plus minusve confluentibus, basi fibrillis numerosioribus, cylindricis, ramosis, gracilibus, radicellarum instar pendulis terminatis, efformato; pileolis spathulatis, antice curvatis, rotundatis paullulumque lobatis, depressis longeque decurrentibus, postice in partem stipitiformem et fibrilliferam connatis, imbricatis, tenuibus, carnosis, fragilibus, unicoloribus et non zonatis, 8-12 mm. latis, grosse velutinis; fibrillis radiciformibus, 5 cm. circiter longis, apice 2 mm. cr. et filiformi-attenuatis. poris totam inferiorem pileolorum faciem partesque decurrentes usque ad fibrillarum originem occupanti, minimis, rotundatis, dissepimentis tenuibus, integris, superficialibus.

Hab. ad terram, Tokyo Japoniæ. — Habitus *Lithophylli.*

18. **Polyporus helopus** Har. et Pat. Bull. Soc. Mycol. 1904, p. 63 c. 411
icone. — Dense cæspitosus e basi carnoso-sclerotioidea, magnitudine pugni, extus fusco-atra, intus alba, inverse conoidea enatus; pileo carnoso tenui excentrico v. sublaterali, orbiculari, profunde umbilicato, margine incurvo, rufo-brunneo, nonnullis squamis latis adpressis, obscurioribus consperso, 3-4 cm. lat., 2 mm. cr.; stipite cylindrico, inferne attenuato, simplici, 3-5 cm. alto, 5-10 mm. cr., albido, basi fuscidulo, glabriusculo; hymenio albido, partem pilei inferiorem et totam stipitis usque ad basim superficiem obtegenti; poris magnis alveolatis, angulatis, tubulis brevioribus, dissepimentis carnosis, integris.

Hab. in ambulacris viridarii Musei parisiensis. — Species perpulcra cum *P. umbellato* comparanda.

19. **Polyporus conglobatus** (Karst.) Sacc. et D. Sacc. *Polypilus conglobatus* Karst. Fungi novi nov. Loennb. 1904, p. 2. (Finska Vetensk. Soc.). — Imbricatus, ex axi communi oriundus, circiter 12 cm. altus et latus; pileis carnoso-sublentis, convexulis, glabris, alutaceo-pallescentibus; poris primitus rotundis, parvis dein angulatis majusculisve, curtis, albidis. 412

Hab. in graminosis ad terram juxta vias prope arbores in horto Mustialaënsi Fenniæ, Septembri 1903, semel lectus.

20. **Polyporus Sumstinei** (Murr.) Sacc. et D. Sacc. *Grifola Sumstinei* Murr. Bull. Torr. Bot. Cl. 1904, p. 335. — Pileo imbricato-multicipiti, 30 × 20 cm., pileolis flabelliformi-spathulatis 6-8 × 0,3-0,5 cm., extus radiato-rugosis, minute tomentosis læte vel saturate brunneis, margine tenui, sicco inflexo et fisso; contextu albo-fibroso, carnoso-molli v. subcoriaceo, 0,3 cm. cr.; tubulis 0,2 cm. long., 7 in quoque mm., initio fuligineis, demum pallidis, polygoniis, irregularibus, acie tenuissima, fragili, demum lacerata; sporis globosis levibus, hyalinis, tenui-tunicatis, copiosis, 5 μ. diam.; stipite tuberculiformi, ligneo, infra nigricante, connato-ramoso, sursum pallidiore in pileolos sensim abeunte. 413

Hab. ad truncos varios, Ohio, Louisiana, Pennsylvania Amer. bor. — Affinis *P. giganteo.*

21. **Polyporus sahranpurensis** P. Henn. Fungi Indiæ orient. II, in Hedw. 1901, p. 325. — Carnoso-spongiosus; pileo excentrico v. lateraliter stipitato, interdum cæspitoso-multiplici, superne molli velutino, glabro v. tuberculoso, isabellino, margine subacuto, interdum rufo-corticato, usque ad 8 cm. diam.; stipite brevi subcylindraceo-clavato, 1-2 cm. longo, latoque v. confluente deformi-compresso, farcto, alutaceo, molli; hymenio concolori, poris lacerato-decurrentibus, rotundato-angulatis, brevibus, planis ca. 3, 5-4 × 3-3,5; carne floccoso-spongiosa, subcaseoso-molli, alutacea, crassa. 414

Hab. in radicibus arborum, Saharanpur-Garden Indiæ orient.

22. **Polyporus Dielsii** P. Henn. in Hedw. 1903, pag. (75). — Pileo primo carnoso-molli, sessili, subhemisphærico-convexo, levi, superne isabellino-brunneolo, verrucis planis, polyhedricis, pallidis, subfarinaceis tecto, ca. 40 cm. diam.; carne sicca molli spongiosa, pallida, dein flavo-isabellina, ca. 3-5 cm. crassa; tubulis flaccidis, ferrugineis, ca. 3-9 cm. longis; poris subrotundato-angulatis vel laceratis, fusco-ferrugineis, ca. 1-2 mm. diam.; sporis ellipsoideis, flavo-brunneis 7-8 × 4,5-5,5, levibus 1-guttulatis. 415

Hab. ad terram argillaceam sub Eucalypto occidentali, in Australia occid. (L. Diels). — Teste cl. auctore, subgenus proprium *(Paniopsis)* format.

23. **Polyporus croceus** (Pers.) Fr. Syst. Myc. I, p. 364. — Syll. VI, p. 117. — *Boletus* Pers. Obs. I, p. 87.

Hab. quoque ad truncos Quercus, in Polonia. — Sporæ hyalinæ, guttulis stramineis, obovatæ, 6-7 × 4-5; hyphæ tubulorum molles, hyalinæ, conglutinatæ, $2\,^1/_2$-$3\,^1/_2$ μ. latæ. Tubuli subcarnosi, exsiccando nigrescentes. Pulcra species rarissima. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 74).

24. **Polyporus cinnamomeo-squamulosus** P. Henn. in Engl. Bot. Jarbh. 1901, p. 43. — Syll. XVI, p. 1115 (nomen). — Pileo carnoso-lento dein subcoriaceo, pleuropode, conchato subreniformi, cinnamomeo, radiato-striatulo, velutino-squamuloso, squamulis obscurioribus evanescentibus, 5-9 cm. lato, 4-5 cm. longo, carne lignicolori; stipite laterali brevi, atro-fusco, 0,3-0,7 mm. longo latoque, basi discoideo; tubulis 1-1,5 mm. longis, decurrentibus; poris minutis atrocastaneis rotundatis, setulis furcatis v. asteroideis vestitis, acie integris; sporis haud conspicuis. 416

Hab. ad truncos, Kamerun Afr.

25. **Polyporus Niaouli** (Pat.) Sacc. et D. Sacc, *Xanthochros Niaouli* Pat. Champ. des colonies franc., in Bull, du jard. colon., 1901, n. 2, p. 263 — *Xanthochrous*. Pileo sessili, dimidiato, in forma ungulæ equinæ, rufo-brunneo, albicante, velutino, 3-4-concentrice et profunde largeque sulcato; margine rotundato, obtuso, indurato; cute suberosa, ferrugineo-brunnea, radiata et zonata; hymenio plano, rufo-brunneo; poris parvulis, angulosis, stratis distinctis, integris; tubulis concoloribus, longioribus in parte mediana; sporis rotundatis, levibus, 5-6 μ. diam., ferrugineis. 417

Hab. in Melaleuca viridiflora in Nova Caledonia. — Imbricatus, 10-15 cm. latus, 6-8 cm. altus.

26. **Polyporus melanocephalus** (Har. et Pat.) Sacc. et D. Sacc., *Xanthochrous melanocephalus* Har. et Pat. Champ. rec. au Jap. in Bull. du Mus. d'hist. nat. 1902, n. 2, p. 130. — *Xanthochrous*. Pileo orbiculari, profunde umbilicato, nigro, glabro, levi, non striato $1\,^1/_2$ cm. lato, tenuiter membranaceo, margine incurvatulo, tenui, hinc inde laceratulo; stipite centrali, 2 cm. longo, ad basim incrassatulo, circ. 3 mm. crasso, longitudinaliter striato-sulcato (forte exsiccationis opé) luteo-ferrugineo, undique furfuraceo; poris fuscescentibus, nudo oculo vix conspicuis, angulosis, superfi- 418

cialibus, dissepimentis tenuibus integrisque, in stipitis apicem leviter decurrentibus; cystidiis nullis.

Hab. ad terram, Tokyo Japoniæ.

27. **Polyporus Bernieri** (Har. et Pat.) Sacc. et D. Sacc., *Xanthochrous Bernieri* Har. et Pat. Journ. de Bot. 1903, p. 9 — Maximus, vix ponderosus, solitarius vel subimbricatus; pileo sessili, pulvinato, convexo v. applanato, non sulcato, setis strigosis erectis undique vestito, pallide cervino, dein fusco-brunneo, tandem senio atro, margine obtuso crassiusculo, concolori, pag. inf. pallidius concolori; poris aliis in situ horizontali integris, angulatis, grandiusculis, dissepimentis tenuibus, non dentatis, alteris decurrentibus, plus minus laceratis, tubulis cremeis mollibus, pruina flavida conspersis; cystidiis nullis; sporis numerosis, flavidis, ovoideis, levibus, 10 × 6, uniguttulatis; contextu pilei molliusculo, cremeo, e fibrillis radiantibus, stuppeis composito. 419

Hab. ad truncos cariosos, raro, Ile des Pins, Nova Caledonia (Bernier). — Pileus 8-15 cm. lat., concrescendo usque 25 cm., 3-15 cm. cr. Ab affini *P. hispido* trama cremea præcipue diversus.

28. **Polyporus illicicola** P. Henn. in Engl. Jahrb. 1902, XXXII, p. 39. — Pileo suberoso, dimidiato sessili, postice effuso, interdum subresupinato, ferrugineo, azono, tomentoso-asperato, margine acuto, mox nudo, 3-6 cm. lato, 0,5-1 cm. longo; poris laceratis irregularibus, cinnamomeis, acie cinerescentibus; sporis ellipsoideis utrinque obtusis interdum ovoideis 13-16 × 8-10, episporio brunneolo, levi, contentu ferrugineo. 420

Hab. in ramis emortuis Illicii religiosi, M.t Kijosum Japoniæ (S. Kusano). — Affinis *P. gilvo.*

29. **Polyporus plorans** (Pat.) Sacc. et D. Sacc., *Xanthochrous plorans* Pat. Bull. Soc. Mycol. 1904, p. 52. — Sessilis, dimidiatus, convexus, semiorbicularis, 10-50 cm. lat., margine rotundato-obtuso, nec recurvato, spongioso-mollis, postice ruditer tomentosus, antice glabrescens levis, undulatus v. rugulosus, ferrugineo-rufus, dein uniformiter brunneus, margine plus minus flavus; tubulis 2-3 cm. longis, flavo-citrinis dein ferrugineo-rufis poris mediocribus rotundatis dein oblongis, fimbriato-laceris; trama 5-8 cm. cr., friabili, fibroso-radiante, brunneo-rufescente, non v. vix zonata; sporis ellipsoideis, levibus, 8-10 × 6-7, pallide citrinis. 421

Hab. ad truncos Populi pyramidalis, rarius Salicis pr. Laghouat Algeriæ (Cap. Sem). — *P. Tamaricis* et *P hispido* af-

finis, differt præsertim levitate, friabilitate tramæ, sporis pallidioribus etc.

30. **Polyporus Tamaricis** (Pat.) Sacc. et D. Sacc., *Xanthochrous Tamaricis* Pat. Bull. Soc. Mycol. 1904, pag. 51, *Polyporus Rheades* Bres. Trid. II, pag. 30, t. 136, nec Pers. — A *P. Rheade* Pers. differt dimensionibus majoribus, præcipue crassitie majori, trama molliore laxiore, læte flava et zonis alternatis flavis brunneisque variegata; pileo brevius velutino, tandem glabrato, nunquam sulcato; sporis 8-9 × 6 (nec 5-6 × 4). 422

Hab. in truncis Tamaricis in Algeria et Ital. bor. — Affinis potius *P. hispido* quam *P. Rheadi.*

31. **Polyporus Hollandii** Massee in Kew Bull 1901, p. 163. — Pileo ungulato-dimidiato, postice latissime adnato, plus minusve decurrenti, effuso, 5-6 cm. lato, 10-12 cm. longo, superne levi, azono, glaberrimo, læte citrino; hymenio e tubulis albis brevissimis, ore minuto rotundo dense composito; carne crassa, compacto-elastica, alba. 423

Hab. ad truncos, Old Calabar Africæ occident. — *P. betulino* Fr. affinis.

32. **Polyporus castanophilus** Atkinson in Journ. of Mycol. 1902, p. 118. — Pileo dimidiato, sessili, convexo, 10-20 cm. lato, 10-12 cm. longo, zonato, plus minusve rugoso, interdum basi tomentoso, rubro-luteo vel rubro-aurantiaco; carne lutescente, zonata, molli, in sicco dura; tubulis planis, margine fimbriatis luteo-aurantiacis, in sicco luteo- vel rufo-brunneis, 6-8 mm. longis; basidiis clavatis, 4-sporis, 15-20 × 4-5; sporis albis, hyalinis, levibus, 3 × 2, granulosis. 424

Hab. in ligno decorticato Castaneæ, Wood, Blowing Rock, N. C. Amer. bor.

33. **Polyporus bambusicola** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 326. — Carnoso-suberosus, laterali-stipitatus, pileo subflabellato v. subtriquetro interdum clavato, sulphureo, molle subvelutino, ruguloso, margine subacuto v. incrassato, obscuriori, repando, 1-1,5 cm. longo latoque; carne spongiosa ferruginea; stipite compresso irregulari, 0,5-15 mm. longo, 5 mm. lato concolori; hymenio ferrugineo; poris decurrentibus, minutis rotundatis v. oblongis, acie integris pallide pruinosis; sporis subglobosis, hyalinis, levibus 4 μ. diam. 425

Hab. in culmis Bambusacearum, Saharanpur-Garden Indiæ orient.

34. **Polyporus asperulus** Har. et Pat. Journ. de Bot. 1903, p. 7. — 426
Leucosporus, pleurotus, stipitatus; pileo semiorbiculari, conchiformi, rigido carnoso-indurato, castaneo, zonis paucis concentricis obscurioribus notato, superficie tactu rudi, postice sub lente leniter cristato; stipite cylindrico, brevi, asperulo; hymenio albido; poris minutissimis, angulosis, dissepimentis tenuibus; tubulis longiusculis, concoloribus, tenuibus; contextu pilei albo.

Hab. ad truncum Aleuritidis emortuum, Tenda, Nova Caledonia (Bernier). — Pileus 3-5 cm. lat, 6 mm. cr.; stipes 1 cm. long., 6-8 mm. cr.

35. **Polyporus aquosus** P. Henn. Fung. S. Paul. III, p. 199 (Hedw. 427
1904). — Pileo subcarnoso aquosissimo, lateraliter stipitato, horizontali, subreniformi vel flabellato, isabellino vel pallide coffeaceo, levi, glabro, margine integro vel inciso-sublobato, ca. 12-15 cm. lato, longoque, 1 $^1/_2$-2 cm. crasso, sicco tenui membranaceo v. subpapyraceo ca. $^1/_4$-1 mm. crasso; stipite tereti levi, glabro, concolori ca. 4 cm. longo, 1 $^1/_2$-2 cm. crasso, contextu pallido; hymenio interrupte poroso, pallido; poris planis, rotundato-angulatis, dein laceratis flaccidis, ca. $^1/_2$-1 mm. diam.; sporis oblongis v. ellipsoideis, obtusis, levibus, hyalino, subflavidulis, 7-10 × 4-5.

Hab. ad truncos emortuos, Serra de Contareira S. Paulo Brasiliæ (Ule). — Videtur affinis *P. hydrophilo* et *P. rigescenti.*

36. **Polyporus Leprieurii** Mont. Cent. II, n. 13, t. 6, f. 1. — Syll. 428
VI, p. 87. — var. **juruanus** P. Henn. F. Amaz I, p. 176 (Hedw. 1904). — Pileo membranaceo-coriaceo infundibuliformi vel subflabellato; margine inciso-crenato vel lobato, gilvo, subtiliter radiato striato, levi glabroque, 1 $^1/_2$-4 cm. diam.; stipite subcentrali vel excentrico, atro-ferrugineo pruinoso, 1-3 cm. longo, 1-1 $^1/_2$ mm. crasso; poris decurrentibus, planis, rotundato v. oblonge polyhedricis, isabellinis, acie integris, rigidis, usque ad 1 mm. diam.

Hab. in truncis putridis, Rio Juruá, Born Fim. Juruá-Miry Amazoniæ (Ule). — Etsi facies valde aliena, tamen ad typum polymorphum videtur spectare.

37. **Polyporus fusco-maculatus** Bres. et Pat. in Lloyd Myc. Not. n. 6, 429
pag. 49. — Pileo papyraceo-membranaceo, in sicco flabelliformi, alutaceo-brunneo, squamis saturatioribus adpressis variegato, 7-8 cm. lato, 4-6 cm. antice producto; stipite laterali suberoso-molli, alutaceo, 1,5-3 cm. longo, 1-1,5 cm. cr. basi haud nigro; tubulis brevibus, vix 1 mm.; poris amplis angulatis, acie demum fimbriatis, sæpius 1 mm. lat.; sporis oblongis, 8-10 × 3-4, hyalinis.

Hab. ad truncos in insula Samoa. — Species habitu *Polyporo squamoso* admodum similis, sed substantia papyraceo-membranacea (saltem in sicco) pilei et spongioso-molli stipitis basi non nigri certe distinguenda.

38. **Polyporus squamosus** Huds. — Syll. VI, pag. 79. — var. **lentinoides** P. Henn. Fung. S. Paul. III, p. 199 (Hedw. 1904). — Pileo carnoso-lento, mesopode convexo, centro infundibuliformi depresso, albido flavescenti, fusco-squamosulo subglabroque, ca. 8 cm. diam., 1-1 $^1/_2$ cm. crasso, contextu albido ca. $^1/_2$-1 cm. crasso; stipite centrali subcylindraceo, pallido isabellino, firmo, duro, farcto, levi glabroque, basi incrassato, curvato, nigricante, radicato, ca. 7 cm. longo, 1 $^1/_2$-2 cm. crasso; tubulis decurrentibus, albidis, medio ca. 6 mm. longis; poris rotundato- vel oblongo-angulatis, 1-2 mm. diam. sublaceratis, acie crenulatis, pallidis; sporis fusoideis vel subclavatis utrinque obtusis, 1-2-guttulatis, hyalinis, levibus, 12-14 ≈ 5-6. 430

Hab. ad terram (?), St. Paulo Brasiliæ (Puiggari). — A forma *mesopoda P. squamosi* habitu et consistentia sat diversus, sporis tamen convenit et ut var. tropicalis habenda.

39. **Polyporus podlachicus** Bres. Fung. polonici in Syd. Ann. Mycol. 1903, vol. I, pag. 73. — Pileo carnoso-lento, demum indurato, glabro, levi vel postice subsaucoso, tenui, reniformi, avellaneo 0,5-1 cm. lato, 0,5 cm. circiter antice producto; stipite laterali, rudimentali tantum, basi scutato-dilatato; tubulis albis 0,5 mm. latis; poris mediocribus 300-500 μ. latis, subrotundis v. angulatis, acie puberula, ex albo stramineis; substantia carnoso-lenta, demum indurata, alba; sporis hyalinis, oblongis 7-9 ≈ 3-3,5. 431

Hab. ad ramos Populi tremulæ, in Polonia rossica. — *Polyporo elongato* affinis, a quo statura multo minore, stipite tantum rudimentali et poris majoribus satis videtur distincta; transit ad *Favolos.*

40. **Polyporus labiatus** (Pat.) Sacc. et D. Sacc., *Leucoporus labiatus* Pat. in Duss. Enum. Champ. Guadel. 1903, p 25. — Pileo pendulo v. laterali, conico, basi punctiformi affixo, regulariter infundibuliformi, dein in laminam tenuem supra productiorem et fere bilabiatam expanso, longitrorsum plicato-striato, glabrescente, obscure zonato, griseo-nigricante, antice fulvo, margine integro v. inciso, tenui; hymenio concavo, rufescente tubulis brevissimis; poris exiguis quasi reticulatis, ad marginem nullis. 432

Hab. ad lignum Simarubæ amaræ, Trois-Rivières, Guada-

lupa. *P. evoluto* proximus, 2–4 cm. long., 1 mm. cr., exsiccatione valde contractus.

41. **Polyporus cæsius** (Schrad.) Fr. Syst. Myc. I, p. 360. — Syll. VI, p. 113 — *Boletus* Schrad. Spic. p. 167.

Hab. quoque ad ramos Pini, Quercus, in Polonia. — Species hæc quoad formam et magnitudinem pororum variabilis; interdum etiam resupinato-reflexa vel ex integro resupinata. Vidi quoque pileo atro-cæruleo. *Polyporus cæruleus* Schum., specie omnibus auctoribus ignota meo sensu huc quoque ducendus. Nota allata substantiæ ochraceæ vix attendenda (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 73).

42. **Polyporus albidus** (Schaeff.) Trog in Flora, Fr. Epicr. pag. 475, *Boletus* Schaeff. Icon. Bav. tab. 124, *Polystictus albidus* (Schaeff.). — Syll. VI, p. 239.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Fungus prorsus variæ figuræ, sessilis vel stipitatus vel etiam resupinatus, generatim in junioribus fragilis, friabilis, demum induratus. Sporæ hyalinæ, oblongæ, $4^1/_2$–$5 \times 2^1/_2$–$2^3/_4$; hyphæ contextus tubulorum 3-4 μ. latæ, crasse tunicatæ; sapor amariusculus. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 74).

43. **Polyporus sulphureo-pulverulentus** (Karst.) Sacc. et D. Sacc. *Inonotus sulphureo-pulverulentus* Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Pileo suberoso, dimidiato, fulvo-ferrugineo præcipue marginem obtusum versus sulphureo-pulverulento, strato interno superiore ferrugineo fulvo, inferiore sulphureo, 3-5 cm. lato; poris brevibus (circiter 1 mm.), minutis, difformibus lacerisque, primitus cinerescentibus, sulphureo irroratis. 433

Hab. in territorio Baicalensi, Listvinitschnoje Sibiriæ, Aug. 1902 (O. A. F. Lönnbohm).

44. **Polyporus nauseosus** (Pat.) Sacc. et D. Sacc. *Leptoporus nauseosus* Pat. in Duss. Enum. Champ. Guadel. 1903, p. 27. — Pileo convexo-dimidiato, antice decurrenti et plus minus imbricato, 6 cm. lat., viscoso, glabro flavo-cinereo, odore nauseabundo; trama carnoso-fibrosa, alba; tubis tenuissimis, albis, mollibus; poris minutis, dentatis, sepimentis tenuibus. 434

Hab. in truncis Coffeæ, Camp Jacob Guadalupa (Duss). — — Species *P. tephroleuco* analoga.

45. **Polyporus minusculus** Boud. in Bull. Soc. Myc. de France 1902, p. 141, tab. 6, fig. 3. — Leptoporus; pileo pallido dein ferrugi- 435
nascente, uno latere adfixo, minuto, 1-3 mm. lato, tuberculiformi

sed tenui, absolute immarginato, glabro, ex albo-ochraceo aut ferrugineo; carne vix ulla, subtus tubulis perpaucis (5-20 numero) pro ratione longissimis, 4-5 mm., sat amplis, vix dentatis, albis, pendulis non ligno adnatis; basidiis brevibus tetrasporis, 12-15 ≈ 6-7, clavatis, intus spumosis; sporis rotundatis, 1-guttulatis, hilo conspicuo, 4-6 μ. diam., hyalinis.

Hab. in ligno abietino, Domont prope Montmorency Galliæ (D. Louvet).

46. **Polyporus duracinus** (Pat.) Sacc. et D. Sacc., *Leptoporus duracinus* Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France, T. XVIII, fasc. II, 1902. — Pileo convexo, rigido, duro, semiorbiculari 15-25 mm. lat., 8-15 mm. long., albo-rufescente, antice saturatiore, glabro, 1-2 sulcis concentricis, profundis exarato vel zonis angustis rufis parcis notato, postice basi lata membranacea affixo, deorsum decurrente, margine recto, obtuso, integro v. in lobos binos, ternos, rotundos diviso; poris albidis, rotundatis, ad marginem punctiformibus; sepimentis crassis, obtusis, integris, pruinosis; trama albida, dura 1-2 mm. crassa; tubis concoloribus 1-1,5 mm. longis; cystidiis nullis; sporis cylindraceis rectis curvulisve, hyalinis, 4 ≈ 1. 436

Hab. in ramis putridis Cecropiæ peltatæ, in Guadalupa (Duss). — *Pol. evoluto, Pol. stereino* et *Pol. versicuti* affinis sed sepimentis crassis, obtusis, diversus.

47. **Polyporus cachoeirasensis** P. Henn. F. Amaz. I, p. 177 (Hedw. 1904). — Pileo carnoso-subcoriaceo, flabellato erecto, cinnamomeo, nitido, radiatim striatulo, interdum subrugoso, 2-2 $^1/_2$ cm. lato, 1 cm. longo, margine tenui; stipite gracili lignescente, tereti, lateral, ferrugineo-velutino, basi flexuoso, ca. 12-15 cm. longo, 1 $^1/_2$-2 mm. crasso; poris rotundato-hexagonis ca. 1-1 $^1/_2$ mm. amplis, acie flaccida, integra; sporis subglobosis, alutaceis, castaneis, dense granulato- vel tuberculato-verrucosis, 10-15 μ. diam. 437

Hab. ad terram silvaticam Cachoeiras ad Marmellos Amazoniæ (Ule). — Stipite longo, flexuoso sporisque tuberculato-verrucosis distincta species.

48. **Polyporus ufensis** (Karst.) Sacc. et D. Sacc., *Inonotus ufensis* Karst. Fung. nov. Loennb. 1904, p. 3 (Finska Vetensk. Soc.). — Pileo suberoso, concrescente, sat tenui, scrupuloso, colliculoso, umbrino-fusco, margine obtusiusculo, pallidiore, 3-4 cm. lato; poris parvis, forma variis, irregularibus, mox laceris, concoloribus albo-irroratis. 438

Hab. prope oppidum Rossiæ, Ufa (leg. O. H. F. Lönnbohm et J. G. Oksahen. — *Lenzitem* in memoriam revocat.

439 49. **Polyporus nigrellus** (Pat.) Sacc. et D. Sacc., *Leptoporus nigrellus* Pat. in Duss Enum. Champ. Guadel. 1903, p. 28. — Omnino resupinatus, late effusus, carnoso-membranaceus, separabilis, margine sterili vix distincto, albido, non fimbriato, adpresso; trama alba; hymenio cinereo-nigricanti, violascente tincto; poris minutis, rotundis, distantibus, sepimentis integerrimis; tubulis curtis.

Hab. ad truncum putrem Sterculiæ caribeæ, Basse-Terre Guadalupa. — A *P.* (Poria) *rivuloso* colore præsertim diversus. An ergo potius gen. *Poriæ* adscribendus?

FOMES Fr. — Syll. VI p. 150, IX p. 173, XI p. 88, XIV p. 180, XVI pag. 151.

440 1. **Fomes albogriseus** Peck in Bull. Torr. Bot. Cl. 1903, p. 97. — Pileo elongato, ungulato, extus lignoso, concentrice sulcato, azono, parte crusta juniore isabellina v. pallide grisea, pruinulosa, parte vetusta inæquali, rimosa et griseo-nigricanti, substantia intus molluscula, friabili, albida; poris minutis, obscure stratosis, intus albis, ore pallido v. isabellino.

Hab. ad truncos Pini contortæ et P. Strobi Kent county, Michigan Amer. bor. (B. O. Longyear). — Pileus 7-35 cm. long., 10-25 cm. lat., 5-15 cm. cr. — *F. fomentario* et *F. juniperino* affinis.

441 2. **Fomes versicolor** P. Henn. in Hedw. 1903, p. (75). — Pileo subungulato, obsolete sulcato-zonato, rufo-brunneo, basi nigricante rimoso, crustaceo, subnitenti, ca. 8 cm. longo, 5 cm. lato, contextu cinnamomeo, lignoso; hymenio convexo, poris rotundato-angulatis, ca. 0,3 mm. diam., aureis dein ferrugineis; sporis late ellipsoideis, flavo-brunneis, levibus, 4-4,5 ≈ 3,5-4.

Hab. in truncis viventibus, ad flum. Russel, N. Queensland Australiæ (Pritzel).

442 3. **Fomes yucatensis** (Murrill) Sacc. et D. Sacc., *Pyropolyporus yucatensis* Murr. Bull. Torr. Bot. Cl. 1903, p. 119. — Pileo lignoso, dimidiato applanato, posterius incrassato, 7-9 × 9-12 × 2-3 cm., extus primitus tomento fulvo vestito, demum atro-brunneo v. nigro et uniformiter tuberculoso et in areas minutas sulcis numerosis concentricis radialibusque diffracto, margine angusto, acuto, velutino, fulvo, contextu duro, fulvo, 0,5 cm. cr.; tubulis obsolete stratosis, in quoque stratu, 0,25 cm. long., in quoque mm. 7, fulvis, poris

circularibus, punctatis, acie crassa obtusa; sporis globosis v. subglobosis, levibus, pallide flavido-brunneis, 3,5-5 μ. diam.; hyphis ferrugineis; cystidiis 17-35 μ. long., acutis, basi incrassatis.

Hab. ad truncos in Yucatan (Millspaugh) et Nicaragua (L. Smith).

4. **Fomes Underwoodii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Underwoodii* Murr., Torr. Bot. Cl. 1903, p. 116. — Pileo lignoso, late ungulato, basi tenuata adnato, infra concavo, 7-14 × 11 cm., extus pluries concentrice sulcato, rimoso, uniformiter ex atro-brunneo, nigro; margine fulvo, acuto v. obtusulo, velutino, undulato, zonis angustis notato; contextu duro e fulvo atro-brunneo, parcissimo, vix 0,5 cm.; tubulis distincte stratosis, in quoque stratu, 0,5-1,5 cm. long., in quoque mm. 3, intus brunneis, acie circularibus v. polygoniis, acutis, integris, saturatioribus; sporis ellipsoideis, levibus, tenui-tunicatis, læte flavido-brunneis, 9 × 7; cystidiis nullis. 443

Hab. ad truncos prope Coamo Springs Porto rico (Underwood et Griggs). — Habitus *F. Robiniæ* sed tubulis, colore, sporis diversus.

5. **Fomes Robiniæ** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Robiniæ* Murr., in Bull. Torr. Bot. Cl. 1903, pag. 114. — Pileo lignoso duro, dimidiato ungulato v. subapplanato, 5-25 × 5-50 × 2-12 cm., extus velutino, levi, mox valde rimoso-rugoso, e fulvo purpureo-nigro, denique sordide nigro, profunde et late concentrice sulcato, margine rotundato velutino fulvo; contextu lignoso duro, concentrice zonato, 1-3 cm. cr. fulvo; tubulis stratosis, 0,15-0,5 cm. long., in quoque mm. 5, fulvis, poris subcircularibus, dissepimentis integris, pori diam. æquantibus; sporis subglobosis, levibus, tenui-tunicatis, ferrugineis, copiosis, 4-5 μ. cr.; cystidiis nullis. 444

Hab. in truncis Robiniæ in Amer. bor. pluribus locis, nec non in Gallia merid. (Fautrey in herb. Upsal.). — Distinguitur statura ampla, superficie rimosa, hymenio fulvo etc.

6. **Fomes prærimosus** (Murrill) Sacc. et D. Sacc., *Pyropolyporus prærimosus* Murr. Bull. Torr. Bot. Cl. 1903, p. 115. — Pileo lignoso, rotundato-angulato, 8-12 × 7-10 × 8-11 cm., extus rimosissimo (post primum annum), late sulcato, protuberantiis tandem fissis, ex atro-brunneo nigro, margine obtuso, velutino, ferrugineo-canescente; contextu suberoso-lignoso, concentrice zonato, fulvo, 0,5 cm. cr; tubulis indistincte stratosis, 1-2 cm. long. in quoque stratu, 3 in quoque mm., concoloribus cum contextu, poris retundato-polygo- 445

niis, primitus ochraceis, acie crassiuscula obtusa, demum tenui et sæpe fissa; sporis globosis, levibus, obscure ferrugineis, 3-4 μ. diam.; spinulis (cystidiis?) ferrugineis, 10-17 × 5-10, basi crassioribus.

Hab. ad truncos Quercus undulatæ in Mont El Capitan, New Mexico, 2200 metr. — Species *F. Everhartii* affinis, pileo amplo ungulato, hymenio plano brunneo et cortice rimosissimo dignoscenda.

7. **Fomes Langloisii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Langloisii* Murr. Bull. Torr. Bot. Cl. 1903, p. 118. — Pileo suberoso, flabellato, basi angusta adnato, sæpe posterius depresso, 8-13 × 10-25 × 0,3-1,5 cm., extus primitus anodermeo, molli, tomento brunneo vestito, pluries concentrice sulcato, tandem glabro, rugoso, indurato, nigro, sulcis numerosis levibus notato; margine velutino, brunneo, tenui, acuto, undulato v. sublobato; contextu suberoso-molli, sensim indurato, atro-brunneo, 0,2-0,5 cm. cr.; tubis reviviscentibus, distiucte stratosis, 0,2-0,5 cm. long. in quoque stratu, 8-9 in quoque mm. brunneis, poris polygoniis, concoloribus, acie maturitate tenui; sporis globosis, levibus, hyalinis, 3 μ. diam.; cystidiis nullis, 446

Hab. ad truncos emortuos v. morientes Cratægi? (*hawthorn*) in Louisiana frequens (Langlois). — Fungus late expansus, hymenio brunneo, superne brunneus v. nigricans. *F. Ribis* affinis.

8. **Fomes jamaicensis** (Murrill) Sacc. et D. Sacc., *Pyropolyporus jamaicensis* Murr. Bull. Torr. Bot. Cl. 1903, pag. 120. — Pileo lignoso, applanato, posterius incrassato, 8-13 × 0,5-5, extus inæquali, radiatim rimoso, ex atro-brunneo nigro, margine ferrugineo, velutino, acuto, demum nigro, expanso-lobato; contextu lignoso, fulvo, 0,5-1 cm. cr.; tubulis stratosis, stratu tenui annuo contextus separatus, 0,2-0,7 cm. long., in quoque mm. 7, intus fulvis, poris rotundis vel polygoniis, primitus canescentibus, acie tenui, acuta integra; sporis globosis vel subglobosis, tenui-tunicatis, levibus, pallide aureo-flavis (senio probabil. saturatioribus), 5-7 μ. diam. 447

Hab. ad truncum vetustum Psidii, Port Antonio Jamaicæ (Earle). — Species sat minuta, flabelliformis, stratosa.

9. **Fomes Hæmatoxyli** (Murrill) Sacc. et D Sacc., *Pyropolyporus Hæmatoxyli* Murr. Bull. Torr. Bot. Cl. 1903, pag. 117. — Pileo lignoso, dimidiato, sessili, posterius incrassato, 12-14 × 4 cm., extus glabro, atro-brunneo, profundiuscule concentrice sulcato, lineis numerosis concentricis saturatioribus notato; margine fulvo, tenui, 448

rotundato, subundulato; contextu suberoso-lignoso, indistincte concentrice zonato, melleo-flavido, 1 cm. cr.; tubulis distincte stratosis, posterius longioribus, 0,5-1 cm. long. (in quoque strato), in quoque mm. 6, sordide brunneis; poris polygoniis concoloribus, acie obtusa dein attenuata; sporis globosis, rarius ovoideis, tenui-tunicatis, levibus, hyalinis, 3,5-5 μ. diam.; hyphis ferrugineis; cystidiis nullis.

Hab. in truncis Hæmatoxyli, Paradise Jamaicæ (Earle). — Species levis, applanata, ampla, tubulis brunneis, contextu melleo.

10. **Fomes Earlei** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Earlei* Murr., Bull. Torr. Bot. Cl. 1903, p. 116. — Pileo lignoso, basi lata adnato, subtus plano, 6-13 × 17 cm., extus concentrice sulcato, admodum rimoso in partibus vetustis, e fulvo brunneo-nigricante, demum ob intemperies griseo-nigro; margine lato obtuso, atro, flavido-aurantio, tomento denso concolore brevi vestito; contextu lignoso, atro rufo-aurantio, concentrice lineis saturatioribus zonato, sub tubulis rimoso; tubulis inæqualiter stratosis, 0,5-0,75 cm. long. (in quoque strato), in quoque mm. 1-2, primitus intus ochraceis dein latericiis, poris circularibus, ochraceis, acie obtusa, tenui; sporis ellipsoideis, levibus, tenui-tunicatis, ferrugineis, 9 × 7-8. 449

Hab. in trunco stante Juniperi in montanis New Mexico (Earle). — Affinis *F. juniperino,* sed multo rimosior, pori ampliores etc.

11. **Fomes crustosus** (Murrill) Sacc. et D. Sacc., *Pyropolyporus crustatus* Murr., Bull. Torr. Bot. Cl. 1903, p. 113. — Pileo lignoso, supra convexo, infra plano, subinde compresso, ungulato, 7-12 × 5 cm., extus glabro, corneo-incrustato, atro-brunneo, concentrice sulcato, flavido-brunneo, sterili; contextu duro, concentrice zonato, ferrugineo, 2 cm. cr.; tubulis indistincte stratosis, quotannis 0,5-1 cm. long., in quoque mm. 5-6, intus avellaneis, poris polygoniis, concoloribus, acie tenui, acuta, integra; sporis globoso-ovoideis, levibus, tenui-tunicatis, hyalinis, 4 × 3,5-4, hyphis obscuris; cystidiis nullis. 450

Hab. ad truncos stantes, 1300 m alt. Rose Hill Jamaica (Earle). — Distinctus forma ungulata, tubulis brunneis, contextu ferrugineo, crusta atro-brunnea.

12. **Fomes Calkinsii** (Murrill) Sacc. et D. Sacc., *Pyropolyporus Calkinsii* Murr., Bull. Torr. Bot. Cl. 1903, pag. 113. — Pileo durissimo, lignoso, ungulato, 10 × 10 × 10 cm., extus glabro, atrobrunneo-nigro, sulcis profondiusculis, concentricis exarato; crusta tenui, 451

cornea, nunquam rimosa; margine rotundato, concolore cum hymenio; contextu lignoso duro fulvo, 1 cm. cr.; tubulis obsolete pluristratosis, minutis, angustis, in quoque mm. 7, rufvis, poris subcircularibus, obtusis, integris; sporis ovoideis, hyalinis, tunica crassa levi, pallide ferrugineis, 5–7 × 3–5; hyphis ferrugineis; cystidiis nullis.

Hab. ad truncos vivos Quercus virentis? (*Live-oak*) in Florida Amer. bor. (W. W. Calkins). — Latus, ungulatus durus, sulcatus, intus fulvus.

15. **Fomes rubritinctus** Murr. in Bull. Torr. Bot. Club. 1903, p. 232 — Pileo suveroso-ligneo, dimidiato, convexo, 4-12 × 5-15 × 3-10 cm., demum atro-brunneo et ruguloso, margine obtuso, sterili, concolori, contextu suberoso, demum lignoso, pallido, 1,5 cm. cr.; tubulis mæqualiter stratosis, stratis contextus cum stratis tubulorum alternantibus, 0,5–1 cm. long., 2 in quoque mm., intus isabellinis, demum umbrinis, poris subcircularibus v. polygonis, acie tenui isabellina, trita atro rubra; sporis ovoideis vel subglobosis, 5–7 μ. long., levibus, hyalinis, membrana modice crassa; hyphis hyalinis. 452

Hab. ad truncos, Nicaragua, Amer. centr. (C. L. Smith). — Fungus magnus, stratosus, poris latis, isabellinis, tritis atro-rubris dignoscendus.

14. **Fomes Cajanderi** Karst. Fung. nov. Loenmb. 1904, p. 8 (Finske Vetensk. soc.). — Pileo sessili, dimidiato, intus floccoso, fomentario, ferrugineo, circ. 15 cm. lato, 1 cm. crasso; poris minimis, rotundis, nudis, haud stratosis, rubiginoso-ferrugineis. 453

Hab. ad laricem dahuricam in insula fluvii Sibiriæ orientalis Lena, Agrafena m. Aug. 1901 (A. K. Cajander).

15. **Fomes annosus** Fr. Syst. Myc. I, p. 375, Icon. sel. tab. 186, f. 2 — Syll. VI, p. 197, *Polyporus cryptarum* (Bull.) Fr. Syst. Myc. I, p. 376, *Polyporus Güntzii* Roum. in Rev. Mycol. Oct. 1882, Fungi Gall. exsicc. n. 2207!

Hab. ad truncos Pini silvestris, in Polonia. — Sporæ hyalinæ, subglobosæ vel ellipsoideæ, 5-6 × 4-4,5 μ. Species hæc præcipue in fodinis ad ligna fabrefacta coniferarum sub omnibus formis frequentissime obvia; in silvis vero magis communis forma resupinata (= *Polyporus makrauchen* Rostk.). (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 75).

16. **Fomes musashiensis** P. Henn. F. japonici IV, in Bot. Jahrbücher vol. XXXVI, 1902, p. 737. — Pileo suberoso-ligneo, duro, 454

firmo, pleuropodo v. per pluries confluente, concentrice zonato v. sulcato, ruguloso, cinnamomeo, breviter tomentoso, 3-5 cm. diam., margine subacuto, subintegro; stipite pleuropodo brevi vel usque ad 2 cm. elongato, ca. 1-1,5 cm. crasso, basi incrassato, cinnamomeo tomentosulo; contextu suberoso, fulvo; hymenio concolori, poris decurrentibus, minute punctiformibus, rotundatis, acie integris; sporis subglobosis 3,5-4 μ. diam., hyalino-flavidulis, levibus.

Hab. ad truncos, **Musashi Japoniæ.**

17. **Fomes bomfimensis** P. Henn. F. Amaz. I. p. 175. — Pileo coriaceo-lignoso rigido, spathulato v. flabellato, flavo-brunneolo v. alutaceo, concentrice versicolori zonato, radiatim substriatulo, margine tenue integro, 2-3 cm. lato, 2½-3½ cm. longo; stipite lateral compresso, lignoso, duro, alutaceo pruinoso, 1-4 cm. longo, 2-4 mm. crasso; contextu sublignoso pallido; poris rotundato-angulatis, minutis, flavidis vel subferrugineis; sporis subglobosis, hyalinis, intus granulatis, 3-3½ μ. 455

Hab. ad lignum putre, Rio Juruá, Bom Fim Amazoniæ (Ule). — Substantia lignea dura ad *Fomitem*, ceteris notis vero ad *Polystictum* nutat.

18. **Fomes cremeo-tomentosus** P. Henn. F. Amaz. I. p. 175 (Hedw. 1904). — Stipite elongato subcylindraceo, sulcato, basi radicato, lignoso, duro, pallido, ca. 10 cm. longo, 1-1½ cm. crasso, apice ramoso, velutino, pileis (3-4) subflabellatis, sublignosis, rigidis, duris, involutis, superne molle velutinis, obsolete zonatis v. azonis, pallidis v. isabellinis, 3-5 cm. latis, 3-4 cm. longis, carne tenui pallida; tubulis ca. 1 mm. longis alutaceis, sporis minutissimis, punctiformibus, rotundatis, pallidis; sporis subglobosis, hyalino-flavidulis, 3-4 μ. diam. 456

Hab. ad lignum putre, Rio Juruá, Bom Fim Amazoniæ (Ule).

19. **Fomes paulensis** P. Henn. F. St. Paulens III. pag. 202 (Hedw. 1904). — Pileo sublignoso, duro, rigido, mesopode, convexo, centro infundibuliformi, subcinereo-cinnamomeo, ferrugineo tomentosulo, concentrice obscuriori zonato, radiatim rugoso, margine tenui, sicco involuto, 13-15 cm. diam., medio ca. 1 cm. crasso, contextu albido; stipite centrali, lignoso, inæquali subtereti, postice sulcato, atrocinnamomeo-corticato, ferrugineo-tomentosulo, ca. 4 cm. longo, 1-1½ cm. crasso, tubulis sinuoso-adnatis, medio ca. 5 mm. longis, isabellinis, poris minutissimis vix conspicuis, rotundato-angulatis, pallidis dein alutaceis; sporis subglobosis vel ovoideis, hyalinis v. subflavescentibus, 6-7 μ. diam. 457

Hab. ad truncos (?) St. Paulo Brasiliæ (Puiggari). — *F. angusto* proximus videtur, sed consistentia lignea coriaceo-spongiosa recedit.

20. **Fomes stipitatus** Murr. in Bull. Torr. Bot. Club 1903, p. 229. 458
Pileo stipitato, omnino corneo indurato, deplanato subtriangulari v. juniore suborbiculari, demum dimidiato, centro ungulato, margine tenui expanso, lobato vel fisso; hymenio vulgo plano, sed sæpe etiam convexo, 5-10 × 3 cm., superficie glabra, vernicea, rubenti-castanea, sulcis numerosis leviter exarata dein nitida nigra, demum opace fumoso-brunnea, margine lato, plano, glabro, obtuso, 3 mm. cr., parte sterili, 0,5 cm. lata, alba; contextu duro, ligneo, 0,5-1 cm. cr., pallide ochraceo, interposita substantia cornea nitida a stipite ad marginem dendritice disposita; tubulis molliusculis, inæqualiter stratosis, 2-4 mm. long., 4-5 in quoque mm, intus griseo-brunneis, poris circularibus albis v. pallidis, rimis læte flavis, sepimentis crassis, obtusis, integris; sporis late ovoideis, basi tenuatis, læte flavido-brunneis, levibus, 5 × 3,5; stipite laterali, 1 cm. cr. et alt., cylindraceo, æquali, glabro, nitide brunneo-nigro, intus cum pilei substantia concolori.

Hab. ad truncos in Nicaragua Amer. centr. (C. L. Smith et B. Shimek). — Nonnullis notis typo *Ganodermatis* accedit.

Subgen. Ganoderma (Karst.)

21. **Fomes zonatus** (Murrill) Sacc. et D. Sacc., *Ganoderma zonatum* 459
Murr. in Bull. Torr. Bot. Club 1902, p. 606. — Pileo subereo-molli, sessili, dimidiato, supra applanato v. convexo, infra concavo, glabro, zonato, non sulcato, 7 × 5 × 1,5, margine velutino, acuto dein obtuso et concolori; contextu molli, floccoso, radiato-fibroso, concentrice zonato, 0,5 cm. long., theobromino-brunneo; hymenio velutino, non stratoso, tubulis 1 cm. long., 3-4 in quoque mm., intus umbrinis; poris ex albo umbrinis, regularibus, polygoniis, materie albida initio obturatis, zona marginali, 0,5-2 cm. lata, vernice flavida v. rubida tectis; dissepimentis integris, obtusis v. acutis; sporis elongato-ellipsoideis, levibus, pallide flavido-brunneis, 8-10 × 4-6.

Hab. ad truncos in Florida Amer. bor. (Underwood). — Affinis *F. sulcato* et, teste cl. Bresadola in litt., forte non satis diversus a *F. resinaceo* Boud.

22. **Fomes sessilis** (Murrill) Sacc. et D. Sacc., *Ganoderma sessile* 460
Murr. in Bull. Torr. Bot. Club 1902, XXX, pag. 604. — Pileo

suberoso-lignoso, dimidiato, sessili, imbricato v. connato, conchato, postice crassiore, margine tenuato, 5-15 × 7-25 × 1-3 cm., e flavido rubro-castaneo, denique opace atro-brunneo, superficie glabro, laccato, lucido, radiato rugoso, concentrice sulcato prope marginem zonis alternis plerumque badiis fulvisque notato, margine tenuissimo, acuto, deorsum vulgo curvato, sæpe undulato, numquam truncato albo, demum concolori; contextu subereo-molli v. ligneo, radiatim fibroso, concentrice zonato, ochraceo-fulvo; tubulis 0,5-2 cm. long. 3-5 in quoque mm., intus brunneis, ore circulari v. anguloso, ex albo griseo-brunneolo, acie tenui integra; sporis ovoideis, obtusis, basi tenuato-truncatis, verrucosis, flavido-brunneis, 9-11 × 6-8.

Hab. in truncis arborum frondosarum in Amer. bor. pluribus locis. — Affinis *F. lucido,* immo verisimiliter, forte ejusdem forma quædam sessilis.

23. **Fomes parvulus** (Murrill) Sacc. et D. Sacc., *Ganoderma parvulum* Murr. in Bull. Torr. Bot. Cl. 1902, XXX, p. 606. — Pileo lignoso, ambitu subcirculari, puncto adfixo, supra convexo, infra plano vel convexo, postice crassiore, 2-2,5 × 1, superficie glabro, laccato, azono, leviter tuberculato, sulcis concentricis levissimis notato, margine acuto, contextu lignoso-molli, pallide ochraceo, 0,5 cm. cr., lineis subcorneis radiantibus a puncto insertionis; tubulis non stratosis, 3 mm. long, 5 in quoque mm., intus umbrinis, ore polygonio, melleo-flavo, dissepimentis integris, obtusis; sporis subglobosis, levibus, pallide flavido-brunneis, 5 × 4. 461

Hab. ad truncos in Nicaragua (C. L. Smith). — Fungus minutus sessilis, supra nitidus, badius, infra melleo-flavus.

24. **Fomes Tsugæ** (Murrill) Sacc. et D. Sacc., *Ganoderma Tsugæ* Murrill in Bull. Torr. Bot. Cl. 1902, XXX, pag. 601. — Pileo stipitato, suberoso-ligneo, flabellato, supra convexo, infra concavo, 4-20 × 5 × 1-4 cm., superficie glabro, inæquali, concentrice sulcato, laccato, e flavido-rubro atro-rubro vel nigricante, margine læte flavo, acuto, demum concolori, truncato, sulcis levibus notato, sæpe undulato et plus minus lobato, contextu molli-suberoso, radiato-fibroso, albo v. albido, 1-3 cm. cr., tubulis annuis, 0,5-0,7 cm. long., 4-6 in quoque mm., intus brunneis, poris circularibus v. polygoniis, ex albo pallide cinnamomeis, acie obtusa dein acuta; sporis ovoideis, apice obtusis, basi tenuato-truncatis, verrucosis, flavido-brunneis, 9-11 × 6-8; stipite laterali, ascendente, frequenter furcato, cylindraceo, æquali, 2-20 × 1-4 cm., colore, superficie et contextu pileo similibus. 462

Hab. ad truncos Tsugæ canadensis in Amer. bor. pluribus locis. — Affinis *F. lucido* sed annuus, pinicola, pallidior etc. Forte non satis diversus a *F. valesiaco* Boud.

25. **Fomes Lionnetii** (Roll.) Sacc. et D. Sacc., *Ganoderma Lionnetii* Rolland Bull. soc. myc. de France 1901, p. 180, t. VIII et Syll. XVI, p. 1115 (nomen). — Pileo applanato, haud crasso, spadiceo-umbrino, ut valva orbiculato, superficiem crustaceam, tenuem, fragilem, rugis profundis, radiantibus, plus minus longis, capillationis ad instar percursam et sulcis manifeste zonatam præbente, ad limbum acuto; hymenio margine sterili pallescente cincto et tubulis tenuibus, longis, brunneis, in senectute stratosis prædito; poris polygoniis, denticulatis, minutissimis, dilutioribus, primum albo-farctis; sporis ovatis, ad basim hyalino-truncatis, levibus, 8 × 5, centro fulvis, ad circuitum brunneo-concretis. 463

Hab. in truncis quibusdam Isthmi Panamæ, Amer. centr. — Insignis species manifeste pilis crusta agglutinatis tecta. Antequam explicetur in flabellum, fungus apparet veluti processus quidam tuberculosus, hymenophorus, stipitem simulans, unde posteriori vegetatione surgit forma conchata Substantia floccosa, elastica, tenax, brunneo-rufa, in partibus obsoletis canescens, fibris ramosis, prælongis, sinuosis, intricatis, sæpe latis efformata. *F. Mangiferæ* Lév. et *F. testaceæ* affinis.

26. **Fomes auriscalpioides** P. Henn. in Hedw. 1904, pag. 82 (*Ganoderma*). — Pileo subhorizontali, tuberoso, convexo-rotundato, ferrugineo pruinoso vel sublanato, cute deinde rimoso, 1-3 mm. diam., 4-5 mm. crasso; stipite subcentrali v. excentrico, subtereti, flexuoso, rigido, proliferante, atro corticato, nitenti, laccato vel pruinoso, 5-6 cm. longo, 2-3 mm. crasso; tubulis 2-3 mm. longis, ferrugineis, poris minutis, punctiformibus, rotundatis, acie pallida dein ferruginea; sporis subglobosis vel late ellipsoideis, levibus, brunneis, 8-10 µ. diam. 464

Hab. ad ligna, Rio de Janeiro Brasiliæ.

27. **Fomes subamboinensis** P. Henn. F. Amaz. I, pag. 175 (Hedw. 1904) (*Ganoderma*). — Pileo suberoso-lignoso, cochleariformi, concentrice sulcato, rugoso, cinnamomeo v. sanguineo laccato, nitido, margine obtuso, flavido, 3-10 cm. diam., stipite laterali plus minus elongato, interdum proliferante ramoso, concolori laccato; contextu subferrugineo; poris ferrugineis, rotundatis minutis, ca. 0,2 mm. diam.; sporis ovoideis, flavo-brunneis, levibus, 5-7 × 4-5. 465

Hab. ad truncos emortuos, Rio Juruá, St. Clara, Juruá-Miry,

Marary Amazoniæ (Ule). — Ab affini *F. amboinensi* præcipue sporis minoribus levibus diversus.

28. **Fomes aratus** Sacc. et D. Sacc., *Ganoderma sulcatum* Murr. in Bull. Torr. Bot. Club 1902, XXX, pag. 607, nec *Fomes sulcatus* Cooke. — Pileo suberoso, dimidiato, sessili v. e tuberculo laterali oriundo, supra plano v. convexo, postice crassiore, 8–11 × 2 cm., superficie laccato glabro, azono, fulvo v. castaneo, profunde sulcato, margine rotundato, velutino, ochroleuco, denique concolori; contextu molli, floccoso, radiato-fibroso, concentrice zonato, 1 cm. cr., umbrino-castaneo; tubulis indistincte stratosis, 125 cm. long., 4-5 in qurque mm., intus umbrinis, poris albidis v. flavidis, denique umbrinis, dissepimentis integris obtusis; sporis ellipsoideis, pallide flavido-brunneis, levibus, 8-10 × 4-6. 466

Hab. ad stipitem Sabaleos Palmetto, Florida (C. G. Lloyd). — Fungus majusculus, sessilis, azonus, sed conspicue concentrice sulcatus. Peraffinis *F. zonato*.

29. **Fomes insularis** (Har. et Pat.) Sacc. et D. Sacc., *Ganoderma* (Amauroderma) *insulare* Har. et Pat. Journ de Bot. 1903, p. 11. — Terrester, mesopus, solitarius; pileo orbiculari, convexo, fusco-brunneo vel ochraceo, bis-ter profunde concentrice sulcato, plus minus transverse plicato-rugoso, centro (in sicco) minute cerebriformi-alveolato, undique pruinoso; hymenio plano aut convexo usque ad marginem extenso, fusco-atro; poris mollibus angulosis mediis, dissepimentis tenuibus integris v. denticulatis; tubulis longiusculis, pallide umbrinis; sporis globoso-ovoideis, flavo-fuscis, subtiliter verruculosis, 13 × 10; stipite lignoso, rigido, cylindraceo, rugoso, fusco-atro, apice pallidiori, pruina fuscidula consperso, intus cavo, contextu pilei molli pallide cervino. 467

Hab. ad terram (« an ad lignum infossum ? »), Ile des Pins, Nova Caledonia (Bernier). — Pileus 3 cm. lat., tubuli 1 cm. long., trama 3 mm. cr. (centro); stipes 1–2 cm. long., 4 mm. cr. Affinis *Fom.* (Gan.) *pullato*.

CRYPTOPORUS (Peck) Shear in Bull. of the Torr. bot Club. 1902, p. 450 (Etym. *cryptos* absconditus et *porus*) *Polyporus* sect. *Cryptoporus* Peck Bull. Torr. bot. Cl. 1880, p. 104. — A typo *Polypori* et *Fomitis* differt pilei margine in extensionem volvæformem, pororum majorem partem tegentem producto.

1. **Cryptoporus volvatus** (Peck) Shear l. c., *Fomes volvatus* (Peck) Sacc Syll. VI, p. 165 cum varr. — Adde loca ad *Pinum virgi-* 468

nianam et *P. contortam Murrayanam* pr. Washington nec non in Colorado et Oregon Amer. bor.; Mexico (Prof. Silvio Bonanse!).

POLYSTICTUS Fr. — Syll VI p. 208 IX p. 181, XI p. 90, XIV p. 185, XVI p. 254.

1. **Polystictus pusillus** Rostr. in Bot. Tidsskrift, Copenhagen 1902, vol. 24, p 209. — Pileo papyraceo, umbilicato, obsolete zonato, levi, glabro, ochraceo, margine crenato, 8 mm. lato, poris mediis, subhexagonis, albidis; stipite centrali, atro-fusco, scabro, 1,5 cm. longo, 1 mm. crasso. 469

   Hab. in ligno, Siam Asiæ merid.

2. **Polystictus Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42, Syll. XVI, p. 1115 (nomen). — Pileo coriaceo, mesopodo, orbiculari v. reniformi, centro depresso v. umbilicato, pallide ochraceo, azono levi glabroque, 2-5 cm. diam.; margine tenui, integro vel subcrenulato; stipite excentrico, tereti farcto, firmo nigricante, ferrugineo-tomentoso v. pruinoso, basi discoideo, 2-5 cm. longo, 1,5-3 mm. cr.; hymenio pallide ochraceo, poris decurrentibus, brevissimis, punctiformibus, vix conspicuis, rotundatis, acie integris; sporis haud visis. 470

   Hab. ad ligna, Kamerun Afr.

3. **Polystictus nigripes** Massee, in Kew Bull. 1901, p. 163. — Pileo cyathoideo-infundibuliformi, carnoso-membranaceo, lento, levi, glabro, pallide ochraceo, margine membranaceo integro, undulato; tubulis minutis, pileo pallidioribus, ore rotundato-angulato, circa 200 μ. diam.; sporis ellipsoideis, hyalinis 7 × 4; stipite erecto, æquali 1-5 cm. longo, 2-5 mm. crasso, cute crustacea atra. 471

   Hab. in ligno emortuo in horto botanico Aburi, Gold Coast Africæ occident. — *P. xanthopodi* Fr. affinis.

4. **Polystictus Parmula** Berk. et Hook. Journ. 1856, pag. 173. — Syll. VI, pag. 214. — var. **madeirensis** P. Henn. F. Amaz. I, p. 179 (Hedw. 1904). — Pileis papyraceis, tenuibus, flaccidis, flabellatis vel rotundatis, umbilicatis, cinnamomeis, concentrice zonatis, nitentibus, margine inciso-lobatis, pallidis, 3-5 cm. diam.; hymenio cinereo-fuscescenti, poris rotundato-angulatis, ca. 60-70 μ. diam.; stipite gracili, corneo, pruinoso-fusco, radicante, ca. 15 cm. longo, 1-1½ mm. crasso. 472

   Hab. ad terram silvaticam, Rio Madeira, pr. Marmellos Amazoniæ (Ule). — Præcipue poris multo minoribus (nec circ. 220 μ. diam. ut in typo) dignoscendus.

5. **Polystictus subbulbipes** P. Henn. F. St. Paulens III, pag. 202 (Hedw. 1904). — Pileo spongioso-molli, ferrugineo, mesopodo, subruguloso, tomentoso, ca. 5 cm. diam., $^1/_2$-1 cm. crasso, margine tenui, subcrenato, carne spongiosa, ferruginea, 0,3-0,8 mm. crassa; stipite centrali inæquali, ferrugineo pruinoso, basi subincrassato, ca. 7 cm. longo, 4-5 mm. crasso; tubulis adnatis subdecurrentibus, 1-1$^1/_2$ mm. longis, poris subrotundatis, acie incrassatis, ferrugineis; sporis globosis, 3$^1/_2$-4, 1-guttulatis, hyalino-flavidulis, levibus. 473

Hab. ad terram (?) Serra da Cantareira Brasiliæ. — Affinis *P. bulbipedi* et *P. Ehrenreichii*, sed præsertim sporis sphæricis nec ellipsoideis (6-8 × 5 in prima, 4-5 × 3,5 in altera) dignoscitur.

6. **Polystictus sacer** Fries Fung. Guin. t. 20. — Syll. VI, p. 213. — var. **juruensis** P. Henn. F. Amaz. I, pag. 180 (Hedw. 1904). — Pileo coriaceo-lignoso, crasso, rigido, orbiculari, medio umbilicato rugoso, concentrice zonato, radiatim sulcato, rugoso, castaneo pruinoso, ca. 8 mm. diam.; stipite lignoso, radicato, tereti, flexuoso, castaneo, ferrugineo pruinoso, ca. 13 cm. longo, 3 mm. crasso; hymenio pallide fuscidulo, poris vix conspicuis, punctiformibus, rotundatis, contextu alutaceo. 474

Hab. ad terram silvaticam, Rio Juruá, Marary Amazoniæ (Ule). — Præcipue consistentia et poris punctiformibus a typo distinctus

7. **Polystictus atripes** Rostr. in Bot. Tidsskrift, Copenhagen 1902, vol. 24, p. 209. — Pileo coriaceo-papyraceo, flavo, glabro, radiatim striato, margine tenui, flexuoso-lobato, ciliato, 4-5 cm. lato; poris minutissimis, decurrentibus; stipite centrali, longo, aterrimo, glabro, 4-5 cm. longo, 4 mm. crasso. 475

Hab. in Siam Asiæ merid.

8. **Polystictus Memmingeri** (Murr.) Sacc. et D. Sacc., *Coltricia Memmingeri* Murr. Bull. Torr. Bot. Cl. 1904, p. 347. — Pileo valde irregulari, circulari vel dimidiato, e convexo plano vel depresso, 10 × 1 cm., extus fulvo vel brunneo, squamis imbricatis concoloribus vestito, margine alutaceo, pubescenti, sterili subacuto, undulato; cortice suberoso, fragili, azono 0,5-1 cm. cr., marginem versus tenuiore concolore; tubulis adnatis, 1-4 mm. longis, 1-3 in quoque mm., umbrinis, senio nigrescentibus; poris primitus circularibus et albidis, demum angulosis et sæpius obscurioribus, sepimentis integris dentatisve; sporis ovoideis, levibus, læte ferrugineis, vulgo 2-guttulatis, 7 × 4; hyphis aureis; cystidiis nullis; stipite centrali v. excentrico, subinde confluente, brevissimo, crasso, basi dilatato, 476

1-3 × 3-5 cm., substantia coloro et superficie cum pileo conformi.

Hab. ad terram ad Blowing Rock North Carolina Amer. bor. (E. R. Memminger).

9. **Polystictus circinatus** Fr. — Syll. VI, p. 208. — var. **triqueter** (Fr.) Bres. Fungi polonici in Syd. Ann. myc. 1903, vol. I, p. 75. *Polyporus triqueter* Fr. in Syll. VI, p. 248. — Sporis substramineis, ellipsoideis, 6-8 × 3,5-4,3; setulis hymenii fulvis, apice cuspidatis et ut plurimum curvatis, basi ventricosis, 50-80 × 6-15; hyphis contextus tubulorum, 2,5-5 latis. 477

Hab. quoque ad truncos Pini silvestris in Polonia rossica. — Species hæc ad folia coacervata vel ad truncos Coniferarum obvia, quoad formam variabilissima, sæpe regularis stipite centrali, sed frequens etiam stipite excentrico vel laterali (= *Polyst. circinatus*) rarius vero stipite rudimentali nullo vel tantum pileo dimidiato aut postice attenuato (= *Polyst. triqueter*).

10. **Polystictus albo-luteus** Rostr. in Bot. Tidsskrift Copenhagen, 1902 vol. 24, p. 209. — Pileo tenui, papyraceo, reniformi, 1-2 cm. lato, albo-nitido, concentrice striato; margine in stipitem brevem, lateralem, basi scutato-dilatatum attenuato; contextu albo; poris minutissimis, luteis. 478

Hab. in ramis, Siam Asiæ merid.

11. **Polystictus Warmingii** Berk. Fungi Glaz. p. 752, Syll. VI, p. 103. — Teste cl. Henn. F. Amaz I, p. 176 (Hedw. 1904), ad hanc speciem vere proteiformem spectant *Craterellus sparassoides* Speg. et *Thelephora multifida* Kl. (= *Hydnum multifidum* Kl.) Henn. — Lectus quoque in Amazonia a cl. Ule.

12. **Polystictus Schmidtii** Rostr. in Bot. Tidsskrift, Copenhagen 1902, vol. 24, pag. 210. — Pileis coriaceo-rigidis, tenuibus, imbricatis, conchatis, densissime concentrice striatis, tomentosulis, cinnamomeis, 1-2 cm. latis; poris minutissimis, ferrugineis, contextu concolori. 479

Hab. Siam Asiæ merid. — Habitus fere *Hymenochætes rubiginosæ*.

13. **Polystictus tigrinus** Rostr. in Bot. Tidsskrift-Copenhagen 1902, vol. 24, p. 209. — Pileo reniformi-orbiculari, ochraceo, distincte fusco-zonato, radiatim sericeo-striato, 3 cm. lato; stipite laterali, æquali, verrucoso, 1 cm. longo, 4 mm. crasso; poris mediis, decurrentibus, ochraceis. 480

Hab. in ligno, Siam Asiæ merid.

14. **Polystictus purpureo-albus** Rostr. in Bot. Tidsskrift, Copenhagen 481

1902, vol. 24, pag. 210. — Pileis imbricatis, dimidiatis, postice effusis, coriaceis, tenuibus, rugosis, glabris, fusco-purpureis, margine lato albo; hymenio pallido; poris mediis, angulatis; dissepimentis tenuibus.

Hab ad truncos, Siam Asiæ merid.

15. **Polystictus olivascens** Rostr. in Bot. Tidsskrift-Copenhagen 482
1902, vol, 24, pag. 209. — Pileo suberoso-coriaceo, horizontali, reniformi, fusco-olivaceo, zonato, adpresse sericeo, 1-2 cm. lato; stipite brevissimo, disciformi; contextu ferrugineo; poris minutis, ferrugineis.

Hab. ad truncos, Siam Asiæ merid.

16. **Polystictus minutissimus** Rostr. in Bot. Tidsskrift-Copenhagen 483
1902, vol. 24, p. 209. — Pileis gregariis, coriaceo-membranaceis, reniformibus, albidis, obscure zonatis, striatis, ca. 2 mm. latis; stipite albo exacte laterali, curto 0,5-1 mm ; poris rotundis, albis.

Hab. ad ramos corticatos, Siam Asiæ merid.

17. **Polystictus simulans** Blonsk. — Syll. IX, p. 185. — var. **borealis** 484
Karst., *Coriolus simulans* (Blonsk.) Karst., var. *borealis* Karst. Fung. non Loennb. 1904, p. 3 (Finska Vetensk. soc.). — Pileo suberoso-coriaceo, dimidiato, convexo-plano, postice gibboso, pallescente, concentrice sulcato, rufo-striguloso, margine acuto obscuriore, circiter 3 cm. lato; poris rotundis tenuibus, minutis, flavescentibus.

Hab. unicum forte juvenile specimen prope Knopio Sibiriæ: legit cl. O. A. F. Loennbohm.

18. **Polystictus applanatus** (Karst.) Sacc. et D. Sacc., *Coriolus applanatus* Karst Fungi nov. Loennb. 1904, pag. 3 (Finska Vetensk. Soc.). — Pileo suberoso-coriaceo, sessili, semiorbiculari aut spathulato, utrinque plano, subglabro, obsolete concentrice sulcato, margine extenuato, acuto, subinde confluente, albo dein lutescente, 4-7 cm. lato, 1-3 mm. crasso; poris rotundis, exiguis, tenuibus, albis. 485

Hab. truncos, Tungust in Karelia boreali rossica. Legit rusticus carelicus.

19. **Polystictus changensis** Rostr. in Bot. Tidsskrift, Copenhagen 486
1902, vol. 24, p. 210. — Pileo tenui, plano, coriaceo, reniformi, glabro, dense concentrice striato-sulcato, vernicoso-polito, dilute brunneo, postice atro-purpureo, 4-5 cm. longo; contextu pallido; hymenio cinerescente; poris mediis exacte uniformibus.

Hab. in ramis exsiccatis et ad truncos Siam Asiæ merid.

20. **Polystictus crenatoporus** Rostr. in Bot. Tidsskrift-Copenhagen 487

1902, vol. 24, p. 210. — Pileo coriaceo, molli, tenui, sessili, albo-villoso, 1-3 cm. longo, 0,5 cm. lato; contextu citrino; poris mediis, irregularibus, citrinis; dissepimentis crenatis.

Hab. ad truncos, Siam Asiæ merid.

21. **Polystictus Gleadowii** Massee, in Kew Bull. 1901, pag. 152. — 488
Pileo semiorbiculari, dimidiato, sessili e convexo plano v. depresso, niveo tomentoso dein subglabrescenti, margine incurvo, 4-5 cm. lato; poris angulosis, albo-stramineis; carne fibrosa, alba, tenuissima; sporis albidis, ellipticis, 6-7 × 4.

Hab. ad ligna emortua, Dehra Dun Indiæ britann. (Gamble).

— *P. virgineo* Cooke affinis.

22. **Polystictus sanguineus** (Lin.) Mey. Essequ. p. 304. — Syll. VI, 489
p. 229. — form. **lactescens** Henn. F. Amaz. I, p. 179. — Pileo albido, nitidulo, concentrice zonato, breve lateraliter stipitato; hymenio cremeo-flavido, intus pallido.

Hab. ad caudices emortuos Rio Negro, Manáos Amazoniæ (Ule).

— Adsunt formæ cinnabarinæ albo-maculatæ transitum ad typum sistentes.

23. **Polystictus Gollani** P. Henn. F. Indiæ or. II, in Hedw. 1901, 490
p. 327. — Imbricato-cæspitosus, ca. 15 cm. longus, 20 cm. latus; pileo suberoso, dimidiato, crasso, superne margineque stupeo-fibroso, filis rigidis, ramosis stramineis vestito, vertice squamoso-rugoso tuberculato, rufofulvo, margine obtuso v. acuto stramineo-velutino usque ad 10 cm. diam.; poris rotundato-angulatis, 1-1,5 mm. diam. vel oblonge laceratis, decurrentibus, stramineis, acie subdenticulatis; sporis ellipsoideis, 1 grosse guttulatis, 7-10 × 5-6 hyalinis, levibus; carne spongioso-suberosa, cremaceo-isabellina.

Hab. in truncis Terminaliæ tomentosæ, Siwalik Range Indiæ orient. — An potius *Trametis* spec.?

24. **Polystictus Shenoi** P. Henn. F. japonici IV, in Bot. Jahrbücher 491
vol. XXXI, 1902, pag. 737. — Imbricato-cæspitosus; pileo suberoso, coriaceo, rigido, dimidiato, convexo, apodo, sericeo-villoso, depresso-velutino, obsolete zonato, cinereo-umbrino, postice plerumque depresso obscuriori velutino, margine integro, obtuso suberoso, vel acutiusculo, 1,5-3 cm. lato, 1,5-2 cm. longo; contextu fulvo, hymenio levi, isabellino; poris curtis, minutis, punctiformibus, rotundatis, acie integris; sporis haud conspicuis.

Hab. in truncis arborum, Oki Japoniæ.

PORIA Fr. — Syll. VI p. 292, IX p. 189, XI p. 93, XIV p. 188, XVI, p. 159.

1. **Poria platensis** Speg. Mycet. argent. ser. II, 1902, p. 53. — Candida, ab initio arida, late effusa 5-20 cm. diam., persistente, margine sensim effuso-evanescente, repandula, subiculo arcte ubique matrice adnato; hymenio subrimoso, albo v. dilute alutaceo; poris brevibus 0.3-0,5 mm. long., semper verticalibus polymorphis, nonnullis minutis angulato-subrotundis 0,3-0,5 mm. diam., aliis linearibus flexuosis 0,8-3 mm. long. commixtis; basidiis et sporis nondum inventis. 492

   Hab. ad trabes pineas fabre factas, La Plata, in Argentina.

2. **Poria vaporaria** Fr. (vix Pers.) Syst. Myc. I, p. 382. — Syll. VI, p. 311.

   Hab. quoque ad ligna Pini silvestris, in Polonia. — Color ex albido ligneus; pori ampli, rotundati vel angulati, non flexuosi nec dædaloidei; sporæ hyalinæ, cylindraceo-curvulæ, mobiles, 4 × 1-1 $^1/_4$; hyphæ contextus crassiuscule tunicatæ, septatæ, ad septa sæpe unilateraliter nodosæ, 2 $^1/_2$-3 μ. *Poriæ sinuosæ* affinis. Cum specimine cl. Friesii concordat; sed *Poria vaporaria* Pers. vix dubie identica cum *Poria Vaillantii* (De Cand.) Fr. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

3. **Poria undata** (Pers.) Bres. F. Polon. in Ann. Myc. 1903, p. 78. *Polyporus undatus* Pers. Myc. Europ. II, p. 90, tab. 16, f. 3, *Polyporus vitreus* Fr. (an Pers.?) Syst. Myc. I, p. 381, *Polyporus Broomei* Rabenh. Fungi Europ. n. 2004, *Polyporus cinctus* Berk. Outl. p. 250, *Poria vitrea* Pers. — Syll. VI, p. 296, etc.

   Hab. quoque ad truncos Pini silvestris, in Polonia. — Species hæc genuinum *Polyporum vitreum* Fr. sistere vix dubitandum, si diagnoses in Syst Myc. l. c., Elenc. I, p. 119 et Hym. Europ. p. 577 comparantur. Specimina originalia non adsunt. *Poria vitrea* Pers. forte distincta, at ego frustra hucusque identitatem comprobare potui. Mea *Poria vitrea* in Hym. Hung. Kmet. p. 21 absque dubio est forma *Poriæ vulgaris* Fr. *Poria*, prout de *P. vitrea* prædicatur, mycelio xylostromeo, tenaci, separabili prædita; poris carnosis, sæpe in nodulos collectis etc., inter innumeras *Poriæ* formas a me visas, tantum in specie hic proposita quærenda. (Bresadola, l. supra c.).

4. **Poria sinuosa** (Fr.) — Syll. VI, p. 322, *Polyporus* Fr. Syst. Myc. I, p. 381, Icon. select. tab. 190, fig. 1.

   Hab. quoque ad ligna adusta Pini silvestris, in Polonia.

Specimen examinatum prorsus typicum, cum figura l. c. plane concordans. Color ex luride albido ligneus vel alutaceus; pori ampli, flexuosi, dædaloidei; sporæ hyalinæ, cylindraceo-curvulæ, 5-6 1/4 × 1-1 1/4; basidia clavata, 15-16 × 4-5; hyphæ contextus tubulorum 2 1/2-3 1/2 μ., tenaces, non septatæ. Variat poris non sinuosis nec dædaloideis: hæc forma sistit *Poriam vaporariam* auct. pl. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

5. **Poria radula** Pers. Obs. 2, p. 14. — Syll. VI, p. 310.

Hab. quoque ad ramos Coryli Avellanæ, in Polonia. — Sporæ hyalinæ, subglobosæ, 3-4 × 3, (non ut errore, ex inspectione Notæ ad speciem diversam spectantis, datum est in Hym. Hung. Kmet. p. 24); basidia clavata, 15-20 × 4-5; cystidia fusoidea, furfuraceo-tunicata, 50-60 × 10-15; hyphæ subhymeniales, crasse tunicatæ, 2-3 μ. latæ. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 80).

6. **Poria Placenta** (Fr.) Sacc. — Syll. VI, p. 302.

Hab. quoque ad corticem Pini silvestris, in Polonia. — Subiculum manifestissimum, sed plus minusve evolutum, interdum usque ad 5 mm. crassum, suberoso-carnosum, ad marginem liberum, subrevolutum, ex albo pallide vinosum; tubuli carnosi, molles, subobliqui, hinc inde stratosi, usque ad 7 mm. longi, colore incarnato, dein fuscescente; pori medii, subrotundi vel oblongi, collabentes, concolores; sporæ hyalinæ, oblongæ, 5-6 × 2 1/2-3; hyphæ contextus tubulorum 3-5 μ. crassæ; hyphæ subiculi 3 1/2-6 μ. crasse tunicatæ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

7. **Poria fumosa** Bres. et Pat. in Lloyd Myc. Not. n. 6, 1901, p. 49. — 493
Late effusa, griseo-fumosa; subiculo spongioso-membranaceo, 0,5 mm. cr., ambitu tomentosulo, sterili; tubulis 1 mm. long.; poris minutis, subrotundis v. angulatis, sæpe e situ oblique oblongis; hyphis 3-4 μ. cr.; sporis obovato-subangulatis vel semilunatis, 4 × 2,5-3.

Hab. ad ramos in insula Samoa. — Forma pororum sæpe e loco natali pendet; si ad ramos prostratos, pori recti regulares, si ad ramos stantes, obliqui, oblongati etc.

8. **Poria locellata** (Karst.) Sacc. et D. Sacc., *Physisporus locellatus* 494
Karst. Fungi nov. Loennb. 1902, p. 8 (Finska Vetensk. Soc.). — Effusa, innata, tenuis, pallescens, sicca obscurior, intus locellis exiguis, plus minusve elongatis; poris exiguis rotundis vel variis, inæqualibus, tenuissimis, laceris fimbriatisque.

Hab. supra lignum semiputridum in regione Baicalensi, Listvinitschnoje Sibiriæ, Aug. 1902 (O. A. F. Lönnbohm).

9. **Poria microspora** (Karst.) Sacc. et D. Sacc., *Physisporus microsporus* Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Orbiculata, crassiuscula, pallescens, subiculo tenui; poris rotundatis, minutissimis æqualibus, dissepimentis tenuissimis. 495

Hab. supra lignum semiputridum prope Mustiala Fenniæ semel tecta. — Dicitur *microspora*, sed de sporis nulla mentio.

10. **Poria lamellosa** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. XXVIII, p. 35. — Resupinata, late effusa, crustuloso-coriacea, isabellina; hymenio poroso-lamelloso; poris decurrentibus, lacerato-labyrinthiformibus, acie inciso- denticulatis vel fimbriatis; basidiis clavatis; sporis subglobosis, hyalinis 3,5 × 3. 196

Hab. in truncis, Usambara (Kummer).

11. **Poria aneirina** (Somm.) Sacc. — Syll. VI, p. 314, *Poria corticola* Fr. pr. p. sc. forma in populo (status juvenilis).

Hab. quoque ad ramos et truncos Populi Tremulæ, in Polonia. — Cl. Dr. H. O. Juel in sua egregia dissertatione « Muciporus und die Familie der Tulasnellaceen » speciem hanc ad novum genus *Muciporus* ducit ex eo quod basidia et sporas generis *Tulasnellæ* possidet. In speciminibus a me examinatis basidia jam absorpta et tantum sporas seu conidia, ut mavult cl. Juel, solutas vidi, obovatas, 5–6 × $3\,^1/_2$-$4\,^1/_2$. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 78).

12. **Poria xantha** (Fr.) Sacc. — Syll. VI. p. 317, *Polyporus xanthus* Fr. Obs. I, p. 128?

Hab. quoque ad ligna Pini silvestris, in Polonia. — Specimen huc relatum dubium manet quia sterile. Color ex albo mox vivide flavo-luteus. Sporæ in speciminibus a me lectis, hyalinæ, cylindraceo-curvulæ, 5-$6\,^1/_2$ × $1\,^1/_2$-2; hyphæ contextus tubulorum crasse tunicatæ, $2\,^1/_2$-3. Specimen orig. *Poriæ xanthæ* Fr. a me visum quoad structuram convenit, sed e vetustate decoloratum et sterile inveni. Etiam *Poria vulgaris* var. *flava* Fr. hic videtur referenda. Hujus specimina non exstant in Herbario cl. Friesii, sed adest specimen sub nomine *Poria vulgaris* var. *flavescens*, quod ad *Poriam molluscam* Pers. pertinet. *Poria xantha*, nostro sensu intellecta, affinis quidem *Poriæ vulgari* Fr. est, sed bene specifice distincta. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

13. **Poria nitida** Pers. Obs. Myc. II, p. 15, tab. 4, f. (non Fr.) *Poria aurantiaca* (Rostk.) Sacc. — Syll. IX, p. 191, *Poria aurantiaca*

var. *saloisensis* Karsten in Revue Myc. n. 33, p. 10, *Poria xantha* Quél. (non Fr.) fide speciminum.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Subiculum ut plurimum manifestissimum, usque ad 6 mm. crassum, aurantiacum, in magis evolutis basi album, in exsiccatis sæpe roseum, ex hyphis crasse tunicatis, 3-6 μ. crassis, conflatum; tubuli et pori carnosi, molles, colore primitus carneolo dein vitellino vel aurantio-incarnato, compressione vel tactu fuscescentes, mox collapsi; sporæ hyalinæ, oblongæ, 5-6 ≈ $2^1/_2$-3; basidia clavata, 12-15 ≈ 5-6; hyphæ contextus tubulorum, intus granulosæ, $2^1/_2$-4 μ. Species hæc a *Poria placenta* colorum variatione modo diversa videtur et valde probabiliter tantum ejus forma. Cum mihi modo e speciminibus siccis hæ duo species sint notæ, distinctas retinui, sed melius in vivo considerandæ, utrum hæc distinctio revera comprobata, an non. *Poria nitida* Pers. absque dubio formam tenuiorem hujus speciei sistit, nam diagnosis et icon l. c. exhibitæ optime cum fungo nostro conveniunt. Contra *Poria nitida* Fr. prorsus diversa. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 77).

14. **Poria carnosa** Rostr. in Bot. Tidsskrift, Copenhagen 1902, v. 24, 497
p. 211. — Pileo carnoso, molli, resupinato, marginato, 3-4 cm. diam.; contextu ferrugineo, margine obtuso, pallido; poris brevibus, mediis, angulatis, inæqualibus, ferrugineis.

Hab. ad truncos, Siam Asiæ merid.

15. **Poria myceliosa** Peck in Rep. of the State botanist 1901, p. 952. 498
— Subiculo membranaceo, a matrice facile secedente; poris brevibus, subrotundo-angulosis vel subflexuosis, tenuibus, acutis, dentatis vel sublaceratis, pallide luteis; sporis minutis, subglobosis, 2-2,5 μ. diam.

Hab. in truncis emortuis, Round Lake, Saratoga co. Amer. bor. 499

16. **Poria delicatula** P. Henn. in Bot. Jahrb. 1904, pag. 44. — Innata, omnino resupinata, effuso-crustacea, vix subiculosa, tenuissima; hymenio cretaceo-flavidulo; poris rotundato-angulatis, ca. 0,2 mm. diam., acie crassis, contextu subflavidis; sporis oblonge ellipsoideis vel ovoideis, sæpe inæquilateralibus, utrinque obtusis, intus guttulatis vel granulatis, hyalinis 9-12 ≈ 5,5-6,5.

Hab. in ramis emortuis, Bomule, Ost Usambara Africæ orient. (Zimmermann).

17. **Poria carbonicola** Karst. Fungi nov. Loennb. 1904, p. 4 (Finska Vetensk. Soc.). — Effusa, levigata, glabra, testaceo-spadicea, 500

opaca, ambitu depressa, concolor, 4-6 mm. crassa; poris perexiguis, tenuibus, rotundis nullâ membranâ impositis.

Hab. supra carbones in regione Baicalensi, Listvinschnoje Sibiriæ, Aug. 1902 (O. A. F. Lönnbohm).

18. **Poria Loennbohmii** Karst. Fungi nov. Loennb. 1904, p. 8 (Finska Vetensk. Soc.). — Effusa, marginata, adnata vel subinnata, pertenuis; poris minutis, obtusis, rotundis, ferrugineo-fulvis, dein pruina densa pallida vel albida obtectis, stratosis, stratum circiter 1 cm. crassum formantibus. 501

Hab. ad carbones in territorio Baicalensi, Listvinitschnoje Sibiriæ (O. A. F. Lönnbohm).

19. **Poria violacea** Fr. — Syll. VI, p. 319, diagn. imperfecta, Bres. Fungi polonici in Syd. Ann. mycol. 1903, vol. I, p. 76. — Constanter dilute violacea; subiculo tenuissimo; tubulis brevissimis ita ut potius *Merulius* appareat; poris mediis 0,5 mm. circ. latis, sæpe e loco oblongatis; sporis hyalinis, subcylindraceis, uno latere subcompressis 5 × 2,5-3; hyphis contextus regularibus, 2-3,5 μ. lat. 502

Hab. ad ligna mucida pinea in Polonia rossica. — Species hæc rarissima vix ab auctoribus intellecta. Fries ipse in El. I, p. 118 cum aliis commiscuit. Etiam icon Rostkovii 27 tab. 3 a Friesio in Hym. Eur. p. 572 huc relata prorsus aliena. (Bres. l. c.).

20. **Poria sanguinolenta** (Alb. & Schw.) Pers. — Syll. VI, p. 330. *Polyporus* Fr. Syst. Myc. I. p. 383, *Boletus* Alb. & Schw. p. 257.

Hab. quoque ad ligna pinea, in Polonia. — Forma hic exhibita est, meo sensu, forma typica, in statu vetusto vix distinguenda et generatim cum *Poria violacea* confusa. Frequens est ad ligna abiegna et pinea, sæpe etiam ad corticem, primitus omnino alba et tactu tantum cruentata, sed exsiccando incarnata evadit, dein in herbariis purpurea vel demum violaceo-fusca. In hac forma sporæ sunt 6-8 × 2-2 ½; basidia 15-18 × 4-5 et hyphæ subhymeniales 3-5 μ. cr. Forma vero ad ligna arbor. frond., a me in « Fungi Kmet. » p. 19-20 enumerata, forte specifice distinguenda, nam crassior est, poris magis regularibus, ætate et in herbario semper pallidior evadit et sporis et hyphis aliquantulo minoribus prædita (Bresadola. Fungi polonici in Ann. Mycol. 1903, p. 79).

21. **Poria rufitincta** B. et Curt. cfr. Syll. VI, p. 310 (nomen), A. L. Smith Fungi from the West Indies in Linn. Soc. Jour. bot. vol. XXXV. — Late effusa, rufa, circa 1 mm. crassa; poris regularibus, minutissimis, circa 800 μ. diam., altitudine variantibus. 503

Hab. in insula Dominica Indiæ occid.

22. **Poria purpurea** (Hall.) Sacc. — Syll. VI, p. 319 — *Polyporus* Fr. Syst. Myc. I, p. 379; Rostk. 27, tab. 3, Bresadola Fungi Hung. Kmet. p. 16, *Poria spissa* Schw. e specimine communicato, vix e diagnosi.

Hab. quoque ad ramos Alni, in Polonia. — var. **roseo-lilacina** Bres. l. c. (*Polyporus purpureus* Fr. El. I, p. 118, nec alibi). Ad ligna Betulæ, in Polonia. Hæc varietas a typo differt subiculo crassiusculo, dissepimentis tubulorum quoque crassiusculis, colore constanter roseo-lilacino, expallente; sporis et hyphis aliquantulo majoribus, sc. sporis cylindraceo-curvulis, 8-10 × 2-2 ½, hyphis usque ad 6 μ. latis. Est forma media ad *Poriam placentam* transiens. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 76).

TRAMETES Fr. — Syll. VI p. 334, IX p. 194, XI pag. 96, XIV p. 192, 1136.

1. **Trametes aratoides** Har. et Pat. Journ. de Bot. 1903, p. 8. — 504
Pileo conchiformi, lateraliter substipitato, rigido, fusco, concentrice et crebre sulcato, postice subruguloso, glabrato, margine undulato plus minusve profunde inciso-lobato, recto, luteo-olivascenti; hymenio concavo, umbrino, cum zona marginali sterili angustissima; poris minutis angulosis, dissepimentis integris, crassiusculis; contextu luteo; tubulis brevibus, vix ½ mm., umbrino-fuscis; cystidiis nullis; sporis non visis.

Hab. ad ligna emortua, Mea in Nova Caledonia (Bernier). — Pileus 2 mm. cr.; stipes, ubi adest, 5 mm. long., basi discoidea; pori in quoque mm. 5. Affinis *T. aratæ* et *T. luteo-olivaceæ*.

2. **Trametes sepium** Berk. in Lond. Journ. Bot. VI, 6, p. 322. — Syll. VI, p. 342.

Hab. quoque ad palos Betulæ et Alni, in Polonia. — Sporæ hyalinæ, oblongæ, lateraliter depressæ, 10-16 × 4-7. Specimina europæa quam americana minus regularia, laxius imbricata, sæpe magis resupinato-producta, hymenio quoque magis lenzitoideo. Species hæc ad *Lenzitem albidam* Fr. proxime accedit et vix specifice distinguitur, nam modo colore pilei alutaceo differt, nota hæc variabilis cum *Trametes sepium* quoque interdum albida vel albido-grisea sit. Specimina *Lenzitis albidæ* prorsus cum figuris Friesii in Icon. select. tab. 177, f. 1 congruentia, a me visa, potius genuinam *Trametem* quam *Lenzitem* sistunt. (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 81).

3. **Trametes subsinuosa** Bres. Fungi Polonici, in Ann. Mycol. 1903, 505

p. 82 (*Polyporus sinuosus* Aut. plur. non Fr.). — Generatim resupinata, raro rudimenta pileorum vel pileos genuinos exserens; ex orbiculari longe lateque effusa; subiculo tenui, membranaceo, $^1/_2$ mm. circiter crasso, albido, ambitu demum separabili et subreflexo vel pileiformi; pileis tunc 3-5 mm. antice protensis, tenuissimis, in magis evolutis zonatis, zonis interdum pubescentibus, ex albo griseolis; tubulis crassiusculis, 2-3 mm. longis, albidis; poris ex albido stramineis vel ochroleucis, mediis vel majusculis, $^3/_4$3 mm. latis, variantibus quoad formam sc. rotundatis, angulatis vel oblongis, acie demum lacerato-subfimbriata; sporis oblongo-subamygdaliformibus, hyalinis, 7-9 × $2\,^1/_2$-$3\,^1/_4$; basidiis clavatis, 20-25 × 5-6; hyphis tortuosis, crasse tunicatis mollibus, $3\,^1/_2$-$5\,^1/_2$ μ. latis, ad septa sæpe nodosis.

Hab. ad ramos corticatos Pini silvestris, in Polonia. — Species hæc *Trameti flavescenti* Bres. affinis, præcipue cum ejusdem formis resupinatis confluere videtur, sed colore primitus albido, poris majoribus et præsertim forma sporarum certe specifice distinguitur. Forma resupinata hucusque cum *Polyporo sinuoso* Fr. ab auctoribus fuit confusa, a quo optime diversa, ut supra vidimus. Specimina teneo ex regione tridentina (ipse), ex Hungaria, Greschik 1898 n. 44) Germania et Anglia (Bres. l. c.).

4. **Trametes flavescens** Bres. Fungi Polonici in Ann. Mycol. 1903, 506
p. 80. — Pileis stuppeo-suberosis, effuso-reflexis, ut plurimum seriatim elongatis, sæpe scalari imbricatis, tomentoso-villosis, stramineo-flavidis, lignicoloribus vel ochroleucis, 3-8 cm. latis, $1\text{-}1\,^1/_2$ cm. antice productis, margine obtuso; tubulis crassiusculis, 3-6 mm. longis, concoloribus; poris mediis vel majusculis, subrotundis, angulatis vel subsinuosis, $^1/_2$-2 mm. acie ex obtusa demum subfimbriata, concoloribus; substantia fibroso-suberosa, lignicolore; sporis hyalinis, cylindraceo-curvulis, 6-8 × 2-3; basidiis clavatis, 18-20 × 4-6; hyphis subhymenialibus crassiusculis, mollibus, crasse tunicatis, $2\,^1/_2$-4 μ. latis.

Hab. ad palos Pini silvestris, in Polonia. — Species hæc *Trameti seriatæ* Fr. proxima, a qua tamen substantia magis fibrosa, pileis evidentius villosis, colore pororum et tubulorum nunquam pure albo et forma sporarum optime diversa. Hucusque in regione tridentina (ipse; in *Abiete excelsa* et *Pino silv.*) et in Polonia rossica observata. Variat ex integro resupinata, margine elevato tomentoso-villoso.

5. **Trametes cervina** (Schw.) Bres. Fungi Polonici in Ann. Myc. 1903, 507

p. 81, *Polyporus* Schw. Car. n. 902, *Polystictus cervinus* (Schw.) Sacc. — Syll. VI, p. 238, *Polyporus biformis* Fr. in litt. ad Klotz. Linn. (1833) VIII, pag. 486, *Polystictus biformis* (Fr.) Sacc. — Syll. VI, p. 240, *Polyporus populinus* Schulz. Mpt. p. 747, f. 3, *Polyporus vulpinus* Kalchbr. tab. 37, fig. 16, *Trametes populina* Bres. Hym. Hung. Kmet. p. 26.

Hab. quoque ad truncos Populi tremulæ, in Polonia. — In Fung. Hung. Kmet. deceptus specimine dubio Herbarii Musei Berolinensis frustra *Polyporum biformem* Fr. ad *Pol. pergamenum* Fr. duxi; sed postea, visis speciminibus authenticis Musei Upsaliensis tam *Polypori biformis* Fr. quam *Polypori cervini* Schw., mox diversitatem specierum hic in synonymia allatarum perspexi. (Bresadola l. c.).

6. **Trametes styracicola** P. Henn. in Engl. Jahrb. 1902, XXXII, 508
p. 40. — Pileo resupinato-effuso, tenui coriaceo, primo orbiculari, margine revoluto, papyraceo, pallido subnitenti, levi; poris mediis, angulatis, lacerato-inæqualibus, alutaceis, acie flaccidis, denticulatis; sporis subglobosis vel ovoideis, hyalinis, $3\,^1/_2$-4 μ. diam.

Hab. in ramis emortuis Styracis obakiæ, Komaba-Tokyo Japoniæ (T. Fukubara). — Proxima *T. serpenti.*

7. **Trametes Theæ** Zimm. in Centr. f. Bakter, Parap. 1901, n. 3, 509
p. 101, fig. 1. — Adnata, tenuis, anguloso-orbicularis, applanata, sordide flava marginem versus sterilis; poris subrotundis, 0,15 mm. diam.; sporis . . . . non visis.

Hab. ad radices et basin truncorum Theæ cultæ, cui gravem morbum affert, in insula Java.

HEXAGONIA Fr. — Syll. VI p. 356, IX p. 198, XI pag. 97, XIV p. 194, XVI p. 166.

1. **Hexagonia Casuarinæ** Pat. Champ. des colonies françaises in Bull. 510
du jard. colon. 1901, n. 2, p. 263, tab. I, f. 1-2. — Sessilis, 6-12 cm. lata, plana, coriacea, orbicularis, ochraceo-rubra, lucida, glabra, in extremitatibus integris v. sinuosis, parum villosa, concentrice pluri-sulcata et stipita, intense concolorata; hymenio rufo-brunneo, plano; poris hexagonalibus parvulis, parum profundis, interne cinereis, stratis integris obtusis.

Hab in Casuarina equisetifolia in Nova Caledonia. — Ab *H. polygramma* poris minimis differt.

2. **Hexagonia amplexans** Pat. Bull. Soc. Mycol. 1902, p. 299, t. XIV. 511
f. 2. — Pusilla, 20-25 mm. lata, 20 mm crassa, orbicularis, late-

raliter adnata, supra convexa, glaberrima, postice gibbosa minuteque papulosa, antice 2-3 sulcis concentricis ornata, margine acuto, tenui recto; inferiori parte convexa, postice decurrenti; poris latiusculis, brunneis, 4-5-gonis, dissepimentis Integris, acutis, tenuibus, subchartaceis, tubulis profundis, 5-8 mm., glabris; cystidiis nullis; contextu brunneo, suberoso, vix concentrice striato.

Hab. in ramis emortuis Acaciæ in Nova Caledonia.

DÆDALEA Pers. — Syll. IV p. 370, IX p. 199, XI p. 100, XVI p. 167.

1. **Dædalea bonariensis** Speg. Myc. argent. ser. II, 1902, p. 52. — 512
Pileis quandoque solitariis, quandoque cæspitosis et sæpe confluentibus, semiorbicularibus 35-70 × 20-40 mm. diam. aut. post., coriaceis, superne planiusculis v. concaviusculis, primo albis dein sordide subroseis v. subisabellinis, squamulosis vel tomentosulis, raro hirsutulis, ambitu glabratis, opacis, levibus, margine acutissimis, repandulis v. denticulatis, postice truncatis vel plus minus cuneatis; stipite brevi v. elongato usque 10 cm. longo, coriaceo; carne tenui, stupposa albo-subcarnea; hymenio primo albo, dein sordide subcarneo, 3-5 mm. crass., cum pileo concreto, in stipite decurrente; lamellis tenuibus dense sinuoso-gyrosis, confertis, acie acutis, integris; basidiis clavulatis 20-25 × 5-7 hyalinis; cystidiis nullis; sporis ellipticis 5-6 × 3,5-4,5, levibus, hyalinis, 1-guttulatis.

Hab. ad truncos putrescentes cariosos S. Catilina prope Buenos Aires in Argentina.

2. **Dædalea incana** (Karst.) Sacc. et D. Sacc., *Dædaleopsis incana* 513
Karst. Fungi nov. Loennb. 1904, p. 4 (Finska Vetensk. Soc.). — Pileo suberoso-coriaceo resupinato, crasse marginato, pubescente, incano, circiter 2 cm. lato; poris parvis, crassiusculis, difformibus, dein laceris, concoloribus.

Hab. ad corticem Alni incanæ prope Kuspio Sibiriæ Junio (O. A. F. Lönnbohm).

3. **Dædalea boganidensis** Borczcz. in A. Th Middendorf Reise in den 514
äussersten Norden und Osten Sibiriens, Band I, Th. 2, St. Petersburg 1850, p. 142. — Resupinata, determinata, primo crumpens tuberculosa, demum seriatim confluens incrustans, tenuis sublignoso-suberosa fuscescente-fulva, 5-7 cm. longa et lata, ambitu marginata pubescenti-velutina, luteo-fulva; poris subrotundis difformibusque laceris; subtus pubescente, fusca; contextu ligneo-fulvo.

Hab. ad ramos Laricis, Boganida, in Sibiria. — Modo crescendi evolutionisque tota historia ad *D. serpentem* Fr. accedit, tamen substantia sublignoso-suberosa, contextu ligneo-fulvo et colore pilei ejusque marginis bene diversa.

BRESADOLIA Speg. — Syll. VI, p. 388.

1. **Bresadolia Mangiferæ** Pat. in Duss. Enum. Champ. Guad. 1903, p. 36. — Carnoso-coriacea, stipitata, mesopoda; pileo orbiculari convexo-plano, 10 cm. lato, 3-4 mm. cr., rufescente, tenuiter tomentoso, verruculoso-papuloso; stipite obconico, albido, 5 cm. long., apice 1 cm. cr., deorsum sensim tenuato, villoso, e portione tuberosa indurata brunnea et villosa oriundo; facie inferiore pilei et stipitis superioris alveolis poriformibus irregularibus, sterilibus excavata; trama alba, tota lacunis oblongis radiantibus partim superne, partim inferne apertis. 515

Hab. in trunco Mangiferæ indicæ, Camp-Jacob, Guadalupa. — Fungus omnino sterilis e *Polyporo* (= Leucoporo) oriunda.

CERIOMYCES Corda — Syll. VI p. 385, IX p. 201, XIV p. 194, XVI, p. 169.

1. **Ceriomyces siculus** Cavara in Bull. Soc. bot. ital. 1902, p. 188. — Subhemisphæricus v. irregularis, primo mollis mucidusque, extus flavo-carneus, maculis sanguineis conspersus, intus fibroso-zonatus, pulverulentus, ochraceus, ad basim pedicellatam v. effusam typice radiatus, pileis longis, 250-280 × 6-8, rigidiusculis castaneo-fuscis ornatus; sporophoris simplicibus v. parce ramosis, flavidis; sporis (gasterosporis) ad apicem sporophororum ortis v. intercalaribus, valde polymorphis, sphæricis, ovoideis, clavatis irregularibusque, sæpe pedicellatis, primo flavidis, dein ochraceis, granuloso-farctis, 8-32 × 8-16. 516

Hab. ad corticem et lignum Cytharoxyli quadrangularis in horto botanico, Catania Siciliæ.

2. **Ceriomyces Stuckerti** Speg. Myc. Arg. Ser. I, in An. Soc. Cient. Arg. 1899, p. 265. — Sessilis e suberoso lignosus repando-globosus 10–20 diam., 8-12 cm. crass., contextu fibroso-radiante ad basim compacto sublignoso intense fulvo-ferrugineo, ambitu sensim relaxato substupposo; sporis pulverulentis densissime constipatis, stratum 3–8 mm. crass., crassiusculum superficialem efficientibus, pulchre ferrugineis, globosis 10-15 μ. diam., episporio crasso levi vestitis, intus protoplasmate dense minuteque granuloso-farctis; 517

sæpe adsunt sporæ alteræ piriformes 15-20 × 10-14, anticæ rotundatæ, postice cuneatæ atque in pedicello breviusculo attenuatæ.

Hab. ad truncos dejectos putrescentes, prope Córdoba Argentinæ.

FAVOLUS Fr. — Syll. VI p. 390, IX p. 202, XI pag. 101, XIV p. 195, XVI p. 169.

1. **Favolus albidus** Massee in Bot. Tidsskrift, Copenhagen 1902, v. 24, p. 217. — Pileo membranaceo, lento, albido, glabro, convexo-expanso, 1-2 cm. lato; poris e rotundato-subhexagonis, radiatim dispositis, albido-stramineis, ætate pallidis; stipite centrali, subæquali, concolori 1,5-2,5 cm. longo. 518

Hab. ad terram prope Kloug Sou, Siam Asiæ merid. — *Fav. Sprucei* Berk. affinis.

2. **Favolus portoricensis** (Murr.) Sacc. et D. Sacc. *Hexagona portoricensis* Murr. Bull. Torr. Bot. Cl. 1904, p. 331. — Pileo centrali-stipitato, circulari, profunde umbilicato, 4 × 0,3 cm. extus subglabro, umbrino, centro concolori, margine integro, subtenui, sicco valde inflexo; contextu albo, fibroso, 1 mm. cr., opaco; tubulis subdecurrentibus, albis 2 mm. long., 4-6-angulis; poris 3 × 1 mm, prope marginem magis regularibus minoribusque; acie tenui, fimbriatula; sporis ellipsoideis, levibus, hyalinis, 2 guttulatis, 8-10 × 3-5; stipite centrali, compresso, deorsum tenuato, subconcolori, minute tomentoso, 2 cm. long., 4 mm. cr. 519

Hab. ad ligna putrida in montibus Porto Rico (Earle). — *Fav. hondurensi* affinis.

3. **Favolus hondurensis** (Murr.) Sacc. et D. Sacc. *Hexagona hondurensis* Murr. Bull. Torr. Bot. Cl. 1904, p. 331. — Pileo centrali-stipitato, circulari, leviter umbilicato, 2-4 × 0,05 cm., extus leviter radiato-striato, subglabro, fulvo, centro fuligineo; margine tenui, regulari, tessellato, sicco inflexo, ciliis numerosis, brevibus fugaciter fimbriato; contextu albo, fibroso, 0,25 mm. cr., marginem versus translucido; tubulis adnatis, albis, 0,3 mm. longis, hexagoniis, radiatim elongatis; poris 2 × 1 mm., prope marginem multo minoribus, acie tenui subintegra; sporis ellipsoideis, levibus, hyalinis, 9 × 3-5; stipite centrali, æquali concolori, pruinoso v. glabrescente, 2-3 cm. long., 2 mm. cr. 520

Hab. ad truncos emortuos, Honduras (Peroy Wilson).

4. **Favolus caperatus** Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Pileo carnoso, 521

11. **Favolus floridanus** (Murr.) Sacc. et D. Sacc., *Hexagona floridana* Murr. Bull. Torr. Bot. Cl. 1904, pag 330. — Pileo flabelliformi applanato, 2-2,5 × 3-0,2 cm., extus hispidulo, candido dein arescendo stramineo, tenuiter radiato-striato; margine leviter undulato, tessellato, ciliis numerosis minutis fimbriato; contextu tenuissimo albo, membranaceo, translucido; tubulis decurrentibus, albis, dein ochraceis, 1,5-2 mm. longis, typice hexagoniis; poris 2-3 × 0,5-1, non radiatim confluentibus, acie tenui, fimbriata; sporis ellipsoideis, levibus, hyalinis, 9 × 4; stipite laterali subæquali, basi scutato, concolori, hispido, 2-3 mm. long., 1-2 mm. cr. 523

Hab. ad truncos putres in silvis pr. Miami, Florida, Amer. bor.

LASCHIA Fr. — Syll. VI p. 404, IX p. 204, XI pag. 103, XIV p. 196, XVI p. 170.

1. **Laschia amœne-rosea** P. Henn. F. St. Paul. III, p. 202 (Hedw. 1904). — Pileo gelatinoso, convexo sessili laterali affixo, ca. 400-500 μ. diam., amœne rosea pallescente, levi, cellulis ovoideis vel subgloboso-clavatis, echinulatis, roseolis, 20-30 × 15-25; poris paucis, 5-8, rotundatis; basidiis clavatis, 13-18 × 4; sporis ellipsoideis hyalinis, 4 × 3. 529

Hab. in ramis emortuis, Alto da Serra, St. Paulo Brasiliæ (Ule). — Perexigua, sessilis, pulchella species.

2. **Laschia** (*Favolaschia*) **sanguinea** P. Henn. in Engl. Boh. Jahrb. 1901, p. 43. — Syll. XVI, p. 1116 (nomen). — Pileo gelatinoso, tenui, suborbiculariter campanulato v reniformi, centro umbonato, reticulato-tuberculato 5 11 mm. diam., sanguineo v. atro-rubro; hymenio plano v. subconvexo concolori; alveolis rotundatis v. oblongis subangulatis, acie integris, crassiusculis 1-1,5 mm. diam., stipite gracili, levi, glabro, sanguineo, basi pallide byssino 1,5-2 cm. longo, 1,5 mm. crasso; sporis ellipsoideis, hyalinis 5-6 × 4. 530

Hab. ad ligna putrida, Kamerun Afr.

3. **Laschia** (*Porolaschia*) **chaugensis** Rostr. in Bot. Tidsskrift, Copenhagen 1902, vol. 24, pag. 211. — Orbicularis carnoso-gelatinosa, superne brunnea, glabra, subtus carnea, sessilis, puncto dorsi excentrico affixa 1-1,5 cm. lata; hymenio reticulato-poroso. 531

Hab. ad truncos, Siam Asiæ merid.

4. **Laschia** (*Porolaschia*) **cæspitosa** Bork. — Syll. VI, pag. 407. P. Henn. in Hedw. 1903 p. (76). — Dense cæspitosa; pileo carnoso-gelatinoso, convexo, pallido, pellucido, levi, glabro, vertice obtuso applanato, pallide brunneolo, interdum conico subumbonato, 0,8- 532

1,5 cm. diam.; stipite centrali, tereti, carnoso, subfistuloso, albido, sublevi v. pruinoso 2,5–4,5 cm. longo, 2–3 mm. cr., basi incrassato; hymenio plano v. convexo, lacteo; poris adnexis, interdum decurrentibus, subrotundatis v. oblonge angulatis, ca., 0,7-1 mm. diam.; tubulis usque ad 3,5 mm. longis; carne ca. 1 mm. cr.; basidiis clavatis, 16-20 × 4–6, sterigmatibus 2-4; sporis late ellipsoideis, intus granulatis, hyalinis, 4-4,5 × 3-3,5.

Hab. gregatim in radicibus vetustis, Eumundi, S. Queensland, Australiæ. — Diagnosis Berkeleiana omnino incompleta.

MERULIUS Hall. — Syll. VI p. 411, IX p. 205, XI p. 104, XIV p. 200, XVI p. 172.

1. **Merulius pseudolacrymans** P. Henn. F. Indiæ or. II, in Hedw. 533
1901, pag. 328. — Carnosus, dimidiato-apodus vel subimbricatus. aurantio-rufescens v. pallescens, sublevis, glaber v. pruinosus 4–12 cm. diam., margine obtuso pallido subvilloso; hymenio ceraceo, alveolato-plicato v. reticulato, ferrugineo; poris angulato-rotundatis 1–2 mm., acie obtusis, integris; sporis subgloboso-ellipsoideis flavidis, obtusis, 1-guttulatis, 4-5 × 3,5-4.

Hab. in radicibus arborum, Saharanpur-Garden Indiæ orient.

2. **Merulius aureus** Fr. El. I, p. 62. — Syll. VI, p. 415.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Species hæc rarissima sæpe rudimenta pilei exserit; color subiculi et marginis aureus; hymenium concolor exsiccando aurantium; sporæ stramineæ, cylindraceæ, 3 $^1/_2$-4 $^1/_2$ × 2-2 $^1/_2$; hyphæ 2–3 μ. latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 82).

3. **Merulius molluscus** Fr. Syst. Myc. I, p. 329, Icon. select. t. 193, f. 2. — Syll. VI, p. 416, *Merulius læticolor* Berk. et Br. Ann. Nat. Hist. n. 1681, *Merulius subaurantiacus* Peck 38 Rep. St. Mus. p. 93! *Merulius aureus* Auct. pl. non Fr.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ flavidæ, ellipsoideæ, 5 $^1/_2$-7 × 4-4 $^1/_2$ rarius 5 $^1/_2$ μ.; basidia clavata, 30 × 6-8; hyphæ 3-5 μ. latæ. Variat crassior et tenuior, margine fimbriato vel subreflexo et subpileato, hymenio carneo, carneo-aurantio etc. (Bresadola, Fungi Polonici in Ann. Mycol. pag. 83).

4. **Merulius himantioides** Fr. Syst. Myc. I, p. 329, Icon. Sel. t. 193, f. 1. — Syll. VI, p. 415 — *Hydnum Pinastri* Fr. Syst. Myc. I, p. 417! *Hydnum sordidum* Weinm. Ross. p. 370!

Hab. quoque ad ligna Pini silvestris, in Polonia. — Sporæ

11. **Favolus floridanus** (Murr.) Sacc. et D. Sacc., *Hexagona floridana* Murr. Bull. Torr. Bot. Cl. 1904, pag 330. — Pileo flabelliformi applanato, 2-2,5 × 3-0,2 cm., extus hispidulo, candido dein arescendo stramineo, tenuiter radiato-striato; margine leviter undulato, tessellato, ciliis numerosis minutis fimbriato; contextu tenuissimo albo, membranaceo, translucido; tubulis decurrentibus, albis, dein ochraceis, 1,5-2 mm. longis, typice hexagoniis; poris 2-3 × 0,5-1, non radiatim confluentibus, acie tenui, fimbriata; sporis ellipsoideis, levibus, hyalinis, 9 × 4; stipite laterali subæquali, basi scutato, concolori, hispido, 2-3 mm. long., 1-2 mm. cr. 528

Hab. ad truncos putres in silvis pr. Miami, Florida, Amer. bor.

LASCHIA Fr. — Syll. VI p. 404, IX p. 204, XI pag. 103, XIV p. 196, XVI p. 170.

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Hab. ad truncos, Siam Asiæ merid.

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1,5 cm. diam.; stipite centrali, tereti, carnoso, subfistuloso, albido, sublevi v. pruinoso 2,5–4,5 cm. longo, 2–3 mm. cr., basi incrassato; hymenio plano v. convexo, lacteo; poris adnexis, interdum decurrentibus, subrotundatis v. oblonge angulatis, ca., 0,7–1 mm. diam.; tubulis usque ad 3,5 mm. longis; carne ca. 1 mm. cr.; basidiis clavatis, 16-20 × 4–6, sterigmatibus 2–4; sporis late ellipsoideis, intus granulatis, hyalinis, 4-4,5 × 3-3,5.

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MERULIUS Hall. — Syll. VI p. 411, IX p. 205, XI p. 104, XIV p. 200, XVI p. 172.

1. **Merulius pseudolacrymans** P. Henn. F. Indiæ or. II, in Hedw. 533
1901, pag. 328. — Carnosus, dimidiato-apodus vel subimbricatus. aurantio-rufescens v. pallescens, sublevis, glaber v. pruinosus 4–12 cm. diam., margine obtuso pallido subvilloso; hymenio ceraceo, alveolato-plicato v. reticulato, ferrugineo; poris angulato-rotundatis 1–2 mm., acie obtusis, integris; sporis subgloboso-ellipsoideis flavidis, obtusis, 1-guttulatis, 4-5 × 3,5-4.

Hab. in radicibus arborum, Saharanpur-Garden Indiæ orient.

2. **Merulius aureus** Fr. El. I, p. 62. — Syll. VI, p. 415.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Species hæc rarissima sæpe rudimenta pilei exserit; color subiculi et marginis aureus; hymenium concolor exsiccando aurantium; sporæ stramineæ, cylindraceæ, 3 $^1/_2$-4 $^1/_2$ × 2-2 $^1/_2$; hyphæ 2–3 μ. latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 82).

3. **Merulius molluscus** Fr. Syst. Myc. I, p. 329, Icon. select. t. 193, f. 2. — Syll. VI, p. 416, *Merulius læticolor* Berk. et Br. Ann. Nat. Hist. n. 1681, *Merulius subaurantiacus* Peck 38 Rep. St. Mus. p. 93! *Merulius aureus* Auct. pl. non Fr.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ flavidæ, ellipsoideæ, 5 $^1/_2$-7 × 4-4 $^1/_2$ rarius 5 $^1/_2$ μ.; basidia clavata, 30 × 6-8; hyphæ 3-5 μ. latæ. Variat crassior et tenuior, margine fimbriato vel subreflexo et subpileato, hymenio carneo, carneo-aurantio etc. (Bresadola, Fungi Polonici in Ann. Mycol. pag. 83).

4. **Merulius himantioides** Fr. Syst. Myc. I, p. 329, Icon. Sel. t. 193, f. 1. — Syll. VI, p. 415 — *Hydnum Pinastri* Fr. Syst. Myc. I, p. 417! *Hydnum sordidum* Weinm. Ross. p. 370!

Hab. quoque ad ligna Pini silvestris, in Polonia. — Sporæ

ellipsoideæ, sub microscopio flavo-aureæ, fulvescentes, 5-6 × 3 $^1/_2$-4 $^1/_2$. Hymenium in speciminibus vetustis hydnoideum. Hunc statum sistunt *Hydnum Pinastri* Fr. et *Hydnum sordidum* Weinm., prout e speciminibus originalibus a nobis examinatis clare comprobatum fuit. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 83).

5. **Merulius crispatus** Fl. Dan. tab. 716, f. 2, Fries Syst. Myc. I, p. 328. — Syll. VI, p. 418.

Hab. quoque ad ramos Alni glutinosæ et Coryli Avellanæ, in Polonia. — Sporæ hyalinæ, oblongæ, sæpe biguttulatæ, 4-4 $^1/_2$ × 2-2 $^1/_2$; basidia clavata 15-20 × 4-5; hyphæ 3-4 $^1/_2$ μ. latæ. Parum a *Merulio serpente* Tode diversus. Meo sensu *Merulius fugax, M. porinoides* et *M. crispatus* vix formæ *Merulii serpentis* Tode considerandæ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 83).

6. **Merulius hydnoides** P. Henn. in Hedw. 1903, XXI, p. 179. — 534
Absque diagnosi.

Hab. in lignis fabrefactis humidis in Germania. — L. c. p. 183 cl. Hennings ex iisdem locis descripsit speciem alteram, ut videtur, novam, sed sine nomine.

SOLENIA Hoffm. — Syll. VI p. 424, IX p. 208, XI p. 106, XIV p. 201, XVI p. 172.

1. **Solenia confusa** Bres. Fung. Polonici in Ann. Mycol. 1903, p. 84 535
(*Solenia anomala* Aut. pr. p.). — Turbinato-substipitata; receptaculis dense gregariis vel basi connatis et cæspitulos circulares, 2 mm. circiter latos, sæpe confluentes, efformantibus, mycelio tenui farinaceo insidentibus, villosis, subcervinis, expallentibus, $^1/_2$ mm. circiter latis, disco e cinereo pallido; sporis pure hyalinis, cylindraceo-subcurvulis, 7-10 × 2-2 $^1/_2$; basidiis clavatis, 30 × 4-6; pilis luteis, apice granulosis, 250-600 × 3, sæpe conidiophoris; conidiis 8-10 × 4 $^1/_2$-6.

Hab. ad ramos corticatos Alni glutinosæ, Salicis cinereæ, Betulæ et Populi tremulæ, in Polonia. — Species hæc forma connata *Soleniæ anomalæ* et forma gregaria *Soleniæ stipitatæ* simillima, a quibus nota sporarum præcipue diversa. In *Solenia anomala* sporæ sunt hyalino-straminæ, 7-11 × 4-5. Etiam *Soleniæ populicolæ* videtur proxima, sed sporis fere duplo minoribus, forma et colore receptaculorum distincta.

2. **Solenia stipata** Fr. Syst. Myc. II, p. 106. — Syll. VI, f. 428.

Hab. ad ligna arbor. frond., in Polonia. — Sporæ hyalinæ,

subcylindraceæ, 8-10 × 3-4; basidia clavata, 30-34 × 6-7; pili griseo-fusci, sub micr. lutei, apice sæpe hyalini, inflati, conidia obovata 7-9 × 5-7 exserentes; discus pallidus. A *Solenia anomala* differt forma cupulari receptaculorum et deficientia subiculi tomentosi. Discum nigrescentem nunquam vidi. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 84).

PHÆOSOLENIA Speg. Mycetes argentinenses, ser. II, 1902, pag. 53 (Etym. *phaios* fuscus et *Solenia*). — Fabrica et natura *Soleniæ*, sed sporæ ochraceæ. In Tab. comp. fung. (vol. XIV, p. 10) genus hoc occupabit n. 122.

1. **Phæosolenia platensis** Speg. l. c. — Subiculum effusum arcte matrice adnatum plagulas majusculas sordidas 1–10 cm. diam. efficiens, ambitu indefinitum, pilis erectis 20-60 × 3–5 fulvellis, hirsutum; pileis numerosissimis, dense gregariis, rectis v. cernuis, turbinatis, margine obtuse rotundatis 0,4-0,8 mm. alt., 0,3-0,5 mm. diam.; pilis confertissimis, brevibus acutiusculis 15-25 × 2-3, continuis, levibus, albo-velutinis; basidiis clavulatis 20 × 6–7, obtusis, sterigmatibus 2–3 brevissimis coronatis; cystidiis nullis; sporis utrinque obtusis vel subacutatis 5 × 4-5, grosse uni-guttulatis e chlorino–ochraceis. 536

Hab. ad ramos vetustos putrescentes Manihotis carthagenensis, La Plata in Argentina.

Fam. 3. **Hydnaceæ.**

HYDNUM L. — Syll. VI p. 430, IX p. 208, XI p. 106, XIV p. 201, XVI p. 174.

1. **Hydnum umbilicatum** Peck in Rep. of the State Botanist 1901, p. 953. — Pileo carnoso, convexo, glabro, umbilicato, rufo brunneo, 12-36 mm. lato; carne alba, sapore grato; aculeis planis, fragilibus, subæqualibus, pileo pallidioribus; stipite subæquali, glabro, firmo, albido 2,5–3,5 cm. longo, 4–8 mm. crasso; sporis globosis 7,5-10 μ. diam. 537

Hab. in silvis, Hague, Amer. bor. — *H. rufescenti* affinis.

2. **Hydnum Ikeni** Sacc. ad interim *Hydnum*.... P. Henn. F. japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, p. 736. — Pileo carnoso, subramoso-imbricato, pallide isabellino, superne longitudinaliter 538

striatulo, interdum verrucoso, margine inciso-lobato, basi in stipitem porrecto, ca. 15 cm. longo; hymenio subisabellino, aculeis densissimis, basi fasciculatis, filiformi-subulatis, acutis, ca. 0,5–1 cm. longis, 100-200 μ. cr.; basidiis clavatis; sporis ovoideis 4–5 × 3,5-4 hyalinis.

Hab. ad truncos Carpini spec., Musashi Japoniæ. — Exemplaria visa tantum sicca et contracta, hinc forma ignota. Forte ad subgenus *Merisma* spectat.

3. **Hydnum graveolens** Delast. — Syll. VI, p. 442. — var. **subzonatum** Peck Rep. St. Bot. 1903, p. 24. — A typo differt pileo plus minus zonato aculeisque pallidioribus. 539

Hab. ad terram North Elba et Lake Pleasant, Amer. bor.

4. **Hydnum imbricatum** L. — Syll. VI, p. 430. — forma **dolichopus** C. Mass. Novit. Fl. Myc. ver. 1902, p. 73. — Pileo superne squamis parvis (deciduis?) vestito, stipite laterali (ad instar *Hydni auriscalpii*) usque ad 10 cm. longo et 1 cm. crasso. 540

Hab. ad terram pr. Tregnago Italia bor.

5. **Hydnum colossum** Bres. Myc. Lusitanici novi in Atti R. Acc. di Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 130. — Pileo carnoso, crasso, e convexo explanato-depresso, margine repando, levi, pubescente, badio-rubiginoso, usque ad 15 cm. lato; aculeis validis, confertis, pileo concoloribus, usque ad 2 cm. longis; stipite napiformi, valido, solido, concolore, pruinato, apice punctato-scabro, 6 cm. circ. longo, apice 4 cm., basi 1–2 cm. cr.; carne lurido-pallida, subconcolore, odore forti, subnauseoso, sapore subamaro; sporis angulato-echinulatis, stramineis, 7-8 × 5-7; basidiis clavatis 35–40 × 6–8. 541

Hab. ad terram in pinetis pr. Setubal Lusitaniæ. — *Hydno versipelli* Fr. proxime affine.

6. **Hydnum albo-magnum** Banker in Bull. Torr. Bot. Cl. 1901, p. 207. — Pileo levi, glabro, repando, 5–8 cm. lato; substantia carnosa, fragili, alba; stipite brevi, crasso, centrali v. excentrico, 2–4 cm. alto, 1-2,5 cm. cr., in basim incrassatam expanso; dentibus tenuibus, 2-4 mm. longis, breve decurrentibus; sporis ovoideis, interdum irregularibus, apiculatis, minutis 3,5–4 × 5,5-7. 542

Hab. ad terram Auburn Ala Amer. bor. — Affine *Hydno repando* et *albido*, sed colore, glabritie, sporis, statura diversum.

7. **Hydnum diabolicum** Rick in Ann. Mycol. 1904, p. 244. — Pileo 2 cm. lato, 3 mm. crasso, carnoso, fragili, brunneo-atro, tomento levi consperso; aculeis 3 mm. altis, regularibus, densis, ex cine- 543

reo brunneo-atris non decurrentibus; stipite 1–2 cm. alto, 4 mm. lato, versus terram brunneo-tomentoso; sporis valde verrucosis 6–8 μ. diam., globosis vel irregularibus brunneis.

Hab. ad terram in silvis prope S. Leopoldo Brasiliæ.

8. **Hydnum boreale** Banker in Bull. Torr. Bot. Club 1902, XXIX, p. 553. — Albo-virescens, udum; pileo crasso, convexo, undulato, 12–15 cm. lat.; stipite brevi, crasso, compresso, 7 cm. long., 7 cm. lat., e lat. 2 cm. cr.; aculeis brevibus, 5 mm. long., 5 mm. lat., apicibus albis rotundatis vel in sicco interdum nodulosis, decurrentibus, brunneolis; substantia zonata, strato superiore albo, inferiore obscuriore; spongiosa, crassa, inferius compactiore, stipitis dilute azurrea; mycelio purpurascente, persistente; odore ingrato. 544

Hab. ad terram humosam et inter folia Mont Desert Americæ borealis.

9. **Hydnum humidum** Banker in Bull. Torr. Bot. Club. 1902, p. 553. — Flavidum, dein brunneum, hygrophanum; pileo irregulari, spongioso, scrobiculato, 9 cm. v. amplius lat.; stipite obtuso, brunneolo, circ. 2 cm. long., 1,5 cm. cr.; aculeis 5 mm. long., brunneis, apice albis; substantia suberosa, sicca duriore et grisea vel lignicolore, maculis obscurioribus subcartilagineo-gummosis notata intusque zonata; odore forti non ingrato; sapore dulci. 545

Hab. ad terram detriticam compactam, Mont Desert Amer. bor. — Fungus vivus, ubi pressus, aquam exsudat.

10. **Hydnum cyaneo-tinctum** Peck Bull. Torr. Bot. Cl. 1903, p. 98. — Pileo vix tenaci, potius molliter spongioso, subplano, minute tomentoso, albido v. fulvescente, margine cyaneo-tincta; carne isabellina v. pallida, demum ferrugineo-brunnea; stipite brevi, firmo, fere usque ad pileum tomento isabellino dense vestito; sporis globosis, verrucosis, coloratis, 4 μ. diam. 546

Hab. ad terram, Orris Island Maine (Miss A. C. Anderson). — Subaffine *H. suaveolenti,* sed inodorum, carne diverse colorata, stipite dense tomentoso.

11. **Hydnum cristatum** Bresadola in Journ. of Mycol. 1902, apud Atkinson. — Pileo 6-10 cm. lato, convexo expanso plus minusve inæquali, irregulari, margine interdum undulato, carnoso, crasso, molli vel sæpe duro ochraceo-luteo, strigoso-cristato; stipite concolori 6-10 cm. alto, 8–15 mm. crasso; aculeis 3-6 cm. longis, brunneo-olivaceis, dein intense griseis, decurrentibus; basidiis clavatis 25–30 × 6-8, 4-sporis; sporis brunneo-olivaceis in charta, sub lente pallide brunneis, globosis, tuberculatis, 4-5 μ. diam. 547

Hab. ad terram, Blowing Rock N. C., in America boreali.

12. **Hydnum juranum** (Quél.) Sacc. et D. Sacc. *Dryodon juranum* Quélet Assoc. franç. p. l'Avanc. Scienc. 1901, part. II, 1902, p. 496, tab. III, f. 10. — Trunco erecto, ramoso, villoso, albo, ramis aculeis brevibus, confertis, acutis, roseo-rubris obtectis; carne elastica, sapida, alba; sporis sphæricis, 6-7 μ. diam., ocellatis, hyalinis. 548

Hab. ad caudices pineos in Jura pr. Neufchâtel autumno (L. Favre).

13. **Hydnum cucullatum** Har. et Pat. Champ. rec. au Japon, in Bull. du Mus. d'hist. nat. 1902, n. 2, p. 130. — Totum albido-lutescens, simplex v. imbricato-cæspitosum, pileo carnoso, glaberrimo, conchiformi, postice marginato, dorsaliter affixo, pendulo, margine undulato, plus minusve lobato, inflexo; aculeis confertis, simplicibus, acutis, 3 mm. circiter longis. 549

Hab. ad truncos, Chuizuipi Japoniæ.

14. **Hydnum conigenum** Peck, Bull. Torr. Bot. Cl. 1903, p. 97. — Pileo coriaceo, 1-2 cm. lat., obconico, supra subplano, levi, minute pubescente, griseo-aurantiaco v. flavido, subinde margine fisso; substantia fibrosa, azona, aurantio-brunnea; aculeis brevibus decurrentibus, albidis dein brunneis; stipite tenui, centrali v. subexcentrico, pileo concolore, deorsum incrassato ob massam spongioso-tomentosam, aurantiam. sporis globosis, coloratis, 4-5 μ. diam. 550

Hab. ad conos Pini ponderosæ, ad pedes Mont Moscow Idaho Amer. bor. (L. F. Henderson). — Affine *H. aurantiaco* sed minus, stipite tenuiore, pileo levi, substantia azona.

15. **Hydnum dichroum** Pers. Myc. Europ. II, p. 213 (Cfr. Syll. VI, p. 456), *Hydnum ochraceum* Quél. non Pers. fide speciminum. — Pileis coriaceis, dimidiato-sessilibus, basi sæpe porrectis, dense imbricatis, pallidis, tomentoso-villosis, levibus vel sulcato-zonatis, parvis, 1 cm. circiter latis, 5-6 mm. antice productis; aculeis crassiusculis, spathulatis, teretibus immixtis, apice demum incisis, carneolis; sporis subglobosis, 1-guttulatis, 4-5 × 3 ½-4; basidiis clavatis, 15-20 × 4-5; cystidiis clavatis vel subfusoideis, superne furfuraceo-tunicatis, 60-80 × 7-9, demum detersis tumque 5-7 μ. latis. 551

Hab. ad corticem Pruni Padi, in Polonia. — Species hæc ab *Hydno pudorino,* cui ceu synonymon a cl. Friesio subjungitur, clare distincta pileo crassiori, generatim dimidiato-sessili, aculeis spathulatis et sporis fere globosis, 1-guttulatis. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 84).

16. **Hydnum sajanense** (Karst.) Sacc. et D. Sacc., *Sclerodon sajanensis* 522

Karst. Fungi nov. Loennb. 1904, p. 4 (Finska Vetensk. Soc.). — Pileo membranaceo, effuso-reflexo, glabro, circiter 3 cm. lato; aculeis confertissimis, acicularibus, gracilibus, flaccidis, æqualibus, ferruginascentibus, circiter 3 mm. longis.

Hab. in cortice arborum frondosarum in regione Sajanensi Sibiriæ, Sept. 1902 (O. A. F. Lönnbohm).

17. **Hydnum sericeum** (Pat.) Sacc. et D. Sacc., *Acia sericea* Pat. in Duss Enum. Champ. Guadel. 1903, p. 19. — Tenue, omnino resupinatum, fragile, ochraceo-pallidum, margine floccoso-albido, vix distincto; aculeis æqualibus, confertis, brevissimis, 200-300 × 50-80, apice sterilibus, habitum velutinum præbentibus; cystidiis nullis; basidiis claviformibus, 13–15 × 4–6, sterigmatibus quaternis; sporis incoloribus, ovoideo-globulosis, levibus, 6 × 4. 553

Hab. ad radices sublignosas Scitamineæ cujusdam, Camp Jacob. Guadalupa (Duss).

18. **Hydnum populinum** Peck Rep. of the State bot. 1899, p. 846. — Resupinatum, effusum, 4–8 mm. long., subiculo tenui, minute flocculoso dein submembranaceo, adnato albo vel albido, margine tenuissimo, nudo, albo; aculeis sparsis vel congestis, brevissimis, obtusis dein papilliformibus, 1 mm. longis, teretibus vel mutua pressione compressis, albis, sæpe leviter roseo-tinctis, intus stipatis superficie distantiusculis; sporis albis, ellipticis 6–7,5 × 3–3,5. 554

Hab. in corticibus Populi tremuloidis, Gansevoort Americæ borealis.

19. **Hydnum pexatum** Massee in Kew Bull. 1901, p. 157. — Subiculo resupinato late et irregulariter effuso, submembranaceo, ochraceo; aculeis confertis, brevibus, acutiusculis, apice subincisis, nonnullis levissime umbilicatis; sporis ellipsoideis, hyalinis, 7 × 5. 555

Hab. ad ligna emortua, in Tasmania (Rodway).

20. **Hydnum combinans** Peck Rep. of the State bot. 1899, p. 846. — Late effusum; subiculo tenui, floccoso-farinoso, adnato, indeterminato, albido; aculeis ad marginem sparsis, albidis, v. stipatis, subfasciculatis, cremeo-luteis, vel constricto-conicis, duriusculis, subobtusis, margine ciliatis; sporis subglobosis, 3–4 μ. diam., uniguttulatis. 556

Hab. in truncis decorticatis, Warrensburg, Amer. bor. — Aculeis vere multiformibus ad *Poriam Odontiamque* vergit. Ab *Hydno farinaceo* et *H. stipato* satis diversum.

21. **Hydnum chlorascens** Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. de France T. XVIII, 1902, fasc. I. — Resupinatum, mem- 557

branaceum, molle, albidum, subtile, fimbriatum, mycelio albido, ramoso circumdatum; aculeis initio albis, deinde rubris et postremo olivaceis, simplicibus, dense stipatis 3 mm. long., conicis, acutis, carnosis, facile secedentibus; cystidiis nullis; sporis ovoideo-fusiformibus singulis, hyalinis, 8 × 3, acervatis rubro-chlorinis.

Hab. in ligno decorticato putri Quercus Suberis, El Feidja, Algeria.

22. **Hydnum fastigiatum** Rick Ann. Mycol. 1904, p. 243. — Resupi- 558
natum, effusum, ceraceum, subiculo tenui, flavescenti, margine griseo, fimbriato, ochraceo-ferrugineum; dentibus in apice et ad latera multiramosis, clavariæformibus, glabris, compressis, albis, dein ochraceo-ferrugineis, usque 2 mm. altis, usque 4 mm. latis, denticulis 0,5 mm. latis; sporis ovoideis 5–6 × 3; basidiis 10 × 6; sterigmatibus quaternis 6 μ. longis; cystidiis basidio paullo angustioribus.

Hab. in ramis putridis St Leopoldo, Rio grande do Sul Brasiliæ. — Dentes similes sunt ramificationi *Clavariæ fastigiatæ*. Siccando læte aurantiacum.

23. **Hydnum balsameum** Peck Rep. State Bot. 1903, p. 15. — Resu- 559
pinatum; subiculo tenuissimo albido vel pallido; aculeis conicis, dense sparsis, non confertis, brunneis, superficiem brunneam reddentibus.

Hab. in lignis decorticatis Abietis balsameæ, North Elba, Amer. bor. Interdum per corticem repit.

24. **Hydnum macrescens** Banker in Peck Rep. St. Bot. 1903, p. 15. 560
— Resupinatum, effusum, subiculo vix 1 mm. cr., ochraceum, subfarinaceum (præcipue in partibus tenuioribus), rimosum, margine indeterminato; mycelio albo, arachnoideo, circa subiculum expanso; aculeis sparsis, minutis, $^1/_{10}$–$^1/_4$ mm. long., 50-100 μ. cr., obtusis, sæpe furcatis, subiculo concoloribus sed pallidioribus, apice subciliato albo.

Hab. in hymenio Sterei frustulosi lignoque emortuo proximo, Saratoga Co Amer. bor. — Affine *H. sulphurello* Peck a quo differt colore, margine indefinito, aculeis ciliatis etc.

25. **Hydnum Earleanum** D. R. Sumstine, Torreya Apr. 1904. — Re- 561
supinatum; aculeis 3-6 mm. long, aureo-flavis . . . .

Hab. in latere inf. truncorum decorticatorum Ostryæ virginianæ, Armshung County, Pa Amer. bor.

PROTOHYDNUM Moell. — Syll. XIV, p. 251.

1. **?Protohydnum lividum** Bres. Fungi Polonici, in Ann. Mycol. 1903, 562
pag. 117. — Subiculo late effuso, adnato, ceraceo-membranaceo, ambitu similari, fusco-livido vel fusco-vinoso fertili; aculeis parvis, papilliformibus, acutis, $^1/_2$ mm. circiter longis, concoloribus, apice sterilibus, interrupte crescentibus, in sicco collabentibus; sporis hyalinis, subglobosis vel obovatis, interdum uno latere subcompressis et crasse 1-guttulatis, $5\,^1/_2$-8 × 4-5; basidiis late obovatis, 9-10 × 6-8, 2-4-sterigmaticis; hyphis conglutinatis, crasse tunicatis, $1\,^1/_2$ μ. circiter latis.

Hab. ad ligna mucida Betulæ, in Polonia. — Species hæc in sicco *Sebacinam* refert, nam aculei omnino collapsi, nec amplius visibiles, in vegeto vero evidentissimi, sed tantum interrupte conglomerato-crescentes, subiculum quoque, ubi aculei desunt, fertile est; aculei tantum infra dimidium fertiles.

IRPEX Fr. — Syll. VI p. 482, IX p. 213, XI p. 110, XIV p. 205, XVI p. 178.

1. **Irpex lacteus** Fr. Fl. I, p. 145, Bres. Hym. Hung. Kmet. p. 37 563
cum syn. — Syll. VI, p. 485.

Hab. quoque ad truncos Alni, in Polonia. — Bres. Fungi Polonici in Ann. Mycol. 1903, p. 88. — var. **canescens** Bres. l. c. (*Irpex canescens* Fr.). — Syll. VI, p. 485. — Ad ramos Frangulæ Alni et Populi tremulæ, in Polonia. Specimina examinata pulchella, parva, hymenio ex maxima parte cyclomycetoideo; sporæ cylindraceæ, uno latere subdepressæ, 5-$7\,^1/_2$ × $2\,^1/_2$-$3\,^1/_2$; basidia clavata, 20-25 × 5-6; cystidia furfuraceo-truncata, fusoidea, valida, 60-100 × 8-10; hyphæ contextus $2\,^1/_2$-4 μ.

2. **Irpex tasmanicus** Syd. Ann. Mycol. 1903, p. 177, *I. depauperatus* 564
Massee in Kew Bull. 1901, pag. 157, nec B. et Br. — Subiculo resupinato, tenui, cervino, ambitu tomentoso, albido; aculeis subconfertis, obsolete reticulato-convexis, brevibus, lateribus subincisis; sporis ellipsoideis, 6 × 3-4, hyalinis.

Hab. in ligno emortuo in Tasmania (Rodway).

RADULUM Fr. — Syll. VI p. 493, IX p. 214, XI pag. 111, XIV p. 206, XVI p. 178. — Cfr. Grev. XX p. 33.

1. **Radulum spathulatum** (Schrad.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 89. *Hydnum* Schrad. Spic. tab. 4, f. 3, *Irpex spathulatus* Fr. El. I, p. 146. — Syll. VI, p. 490.

Hab. ad ligna Pini silvestris, in Polonia. — Species hæc potius *Radulum* quam *Irpex*. Subiculum bene evolutum subceraceum et aculei vix coriacei, insuper sæpe tuberculati et teretes. Sporæ hyalinæ, 1-guttulatæ, subglobosæ, 3 $^1/_2$-4 $^1/_2$ × 3 $^1/_2$-4; basidia clavata, 15-20 × 4-5; hyphæ 2-3 μ. Teste cl. P. Hennings, hujus speciei status gasterosporus esset *Ceriomyces rubescens* Boud.

2. **Radulum Eichlerii** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 89. 565
— Effusum, luride carneolum, margine byssino, albido; subiculo tomentoso-submembranaceo; tuberculis ceraceo-subspongiosis, irregulariter sparsis, cylindraceis vel spathulatis vel compressis, apice truncatis, pubescentibus, interdum poroso-connexis, in sicco valde diminutis, pallidis, apice sub lente fimbriatis; sporis flavo-rufis, subglobosis, uno latere subdepressis, 5-7 × 4 $^1/_2$-6 $^1/_2$; basidiis clavatis, 30-35 × 7-8, 2-4 sterigmaticis; hyphis tenuibus, septato-nodosis, 4-7 μ. latis.

Hab. ad truncos Coryli Avellanæ in Polonia. — Species hæc exsiccando collabitur, deformatur et vix primitivæ formæ vestigia relinquit.

3. **Radulum stratosum** Annie L. Smith Journ. Linn. Soc. XXXV, 566
pag. 8, tab. 1, fig. 1-5 (extr.). — Syll. XVI p. 1116 (nomen). — Effusum, fuscum, margine paullo reflexum, circa 1 mm. crassum; tuberculis dentiformibus, raro papilliformibus, minutis, obliquis, fuscis, plerumque in apicem pallidum sterilem attenuatis; thallo sectione verticali e stratis cellularum parenchymaticum et sporarum velut inclusarum pluribus alternis composito; basidiis amplis, irregularibus, obtusis; sporis ovato-oblongis, spadiceis, levibus 10 × 7.

Hab. ad ligna, in ins. Dominica Indiæ occid. — In formam rosaceam crescit.

GRANDINIA Fr. — Syll. VI p. 500, IX p. 215, XI pag. 113, XIV p. 207, XVI p. 179.

1. **Grandinia Burtii** Peck Rep. of the State bot. 1899, pag. 847. — 567
Resupinata, tenuis, adnata, minute rimosa, alba vel albida, dein cremeo-lutea, ambitu definito albo; granulis minutis, hemisphæricis vel papillosis, numerosis, stipatis sed parce congestis; sporis subellipsoideis 6 × 5.

Hab. in corticibus Fagi, East Galway, Saratoga co., Amer. bor. (E. A. Burt).

2. **Grandinia cinereo-violacea** P. Henn. in Hedw. 1903, p. (74). — 568
Crustacea, innata, late effusa, emarginata, interdum rimosa, con-

textu cinnamomeo, hymenio cinereo-violaceo, pruinoso, dense granulato, granulis verruciformibus, subfimbriatis, ca. 60-100 μ. diam.; sporis subglobosis, 3-4 μ. diam., levibus.

Hab. in truncis corticatis, Eumundi, S. Queensland Australiæ (L. Pritzel).

3. **Grandinia helvetica** (Pers.) Fr. Hym. Eur. p. 627. — Syll. VI, p. 502 — *Hydnum* Pers. Myc. Europ. II, p. 184.

Hab. quoque ad truncos Populi tremulæ, Betulæ, Tiliæ, Abietis et Pini silv., in Polonia. — Mycelium himantioideum, e fibrillis pallidis, reticulatis, ex hyphis regularibus 5-7 μ. crassis, conflatis constans; granulis globosis, in sicco ut plurimum collapsis, griseo-alutaceis; sporis globosis, hyalinis, punctato-asperulis, 4-4 $^1/_2$ × 3 $^1/_2$-4; basidiis clavatis, 20-25 × 4-6; hyphis contextus hic illic inflatis, 4-8 μ. latis. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 89).

PHLEBIA Fr. — Syll. VI p. 497, IX p. 215, XI pag. 112, XIV p. 207.

1. **Phlebia Kriegeriana** Henn. in Hedw. 1902, p. (146). — Mycelio 569
(subiculo) albido, carnoso-membranaceo, effuso, ambitu tenui-membranaceo, effuso, ambitu tenui-membranaceo v. fibroso-radiato-fimbriato; hymenophoro ex tuberculis usque 0,5 mm. altis, sæpe anastomosantibus, carnosulis, demum longitudinaliter plicatis vel obtuse rimulosis, formato; tuberculis subinde pluribus, ex uno puncto oriundis et radiantibus; hymenio læte brunneolo, griseo-variegato; basidiis clavatis, 2-4-sterigmata ferentibus; sporis cylindraceis, curvulis, utrinque rotundatis, 3,5-4 × 1,5-2, hyalinis levibus.

Hab. in trunco dejecto, vetusto, Aceris Pseudoplatani in cacumine Winterberg, in Helvetia Saxonica (W. Krieger). — Descriptionem pleniorem et forte magis exactam confer loco citato.

2. **Phlebia albida** Fr. Monogr. II, p. 280. — Syll. VI, p 438.

Hab. quoque ad ramos Alni, in Polonia. — Cartilagineo-membranacea, ex orbiculari oblonga, vegeta substraminea vel pallide alutacea, demum centro tinctura subcarneola, exsiccando candicans vel flavescens, margine albo-fimbriato, rugis radiantibus obsita, centro papillosa; sporæ hyalinæ, subcylindraceæ, 4 $^1/_2$-5 × 2 $^1/_2$-2 $^3/_4$; basidia clavata 15-20 × 4-5; hyphæ 4-5 μ. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 90).

ODONTIA Pers. — Syll. VI p. 506, IX p. 216, XI p. 113, XIV p. 208, XVI pag. 180.

1. **Odontia diaphana** (Schrad) Quél., Bres. Fungi Pol. in Ann. Mycol. 1903, p. 87, *Hydnum diaphanum* Schrad. Spic. tab. 3, f. 3? — Syll. VI, pag. 472.

   Hab. quoque ad truncos Carpini, in Polonia. — Species hæc, meo sensu intellecta, vix specifice distincta ab *Od. crustacea*. Structura identica, modo aculei regulariter explicantur, e granuliformibus teretibus, elongatis, usque ad 2 mm. longis, glabris, apice sterili, subfimbriato, raro bifido, subdiaphanis. *Hydnum diaphanum*, subiculo diaphano, nondum vidi (Bresadola l. c.).

2. **Odontia brassicicola** Bres. Myc. Lusitanici novi, in Atti R. Acc. di 570
   Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 131. — Late effusa; subiculo tomentoso, albo, ubique fertili; aculeis dense congestis, e granulosis verruciformibus, apice breviter fimbriatis, albis, minutis, vix 0,5 mm. long.; sporis subvirguliformibus, 3,5-4,5 × 1,5-2 hyalinis; basidiis clavatis, 15-18 × 5; hyphis 2,5-4,5 μ. latis.

   Hab. ad caules vetustos exsiccatos Brassicæ oleraceæ pr. Setubal Lusitaniæ.

3. **Odontia stipata** (Fr.) Quél. Fl. Myc. pag. 435, *Hydnum* Fr. Syst. Myc. I, pag. 425. — Syll. VI, pag. 473.

   Hab. quoque ad truncos Ulmi, in Polonia. — Subiculum tomentosum, ex hyphis tenacibus, copiosis, 2-2½ μ. latis conflatum; aculei dense congesti, breves, fimbriati vel dentati; sporæ subglobosæ, punctatæ, hyalinæ, 4 × 3; basidia clavata, 12 × 3-4. Ab *Odontia farinacea* præcipue subiculo tomentoso distincta (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 87).

4. **Odontia subalbicans** (Pers.) Bres. Fungi polonici in Ann. Mycol. 571
   1903, p. 87, *Thelephora granulosa* β. *subalbicans* Pers. Syn. p. 576, *Hydnum* Myc. Europ. II, p. 184 — Sordide albida, tenuis, granulis concoloribus plus minusve dense congestis, demum subverruciformibus, apice subfusco fimbriato; sporis hyalinis, subcylindraceis, 7-10 × 3-4; basidiis clavatis, 30-35 × 6-7; hyphis irregularibus 5-6 μ. crassis.

   Hab. quoque ad truncos querneos in Polonia. — Bene evoluta *Odontiæ bicolori* Alb. et Schw. sat similis evadit.

5. **Odontia Himantia** (Schw.) Bres. Fungi polonici in Ann. Mycol. 1903, pag. 85, *Hydnum* Schw. n. 992, Bres. Hym. Hung. Kmet. p. 30 c. syn. — Syll. VI, p. 469.

Hab. quoque ad truncos Coryli et Quercus, in Polonia. — Sporæ genuinæ, hyalinæ, oblongæ, 8-10 × 3-4 (non ut in Hym. Hung. Km. loc. cit. errore exposui) basidia clavata, 24-28 × 6-8; hyphæ contextus 3-4 μ. latæ. Pulchra hæc species hucusque jam pluribus locis in Europa lecta, scil. in Hungaria (Kmet, Greschik) in Suecia (Romell) et in Polonia rossica (Eichler). Crescit etiam ad truncos Coniferarum.

6. **Odontia lusitanica** Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc. Lett ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 131. — Resupinata et late effusa; subiculo tenui, submembranaceo, in sicco cartilagineo; aculeis carnosis, exsiccando corneis, subulatis, dense aggregatis v. basi connatis, apice fimbriatis, glabrescentibus, ex hyalinis pallide carneo-fumosis, 6-10 mm. longis, basi 1 mm. circ. cr.; sporis obovatis, 6-7 × 4-4,5 hyalinis; basidiis clavatis, 25-30 × 6-7; cystidiis subfusoideis, apice obtusis, 12-15 μ. latis. 572

Hab. ad truncos Amygdalis communis pr. Setubal Lusitaniæ.

7. **Odontia platensis** Speg. Mycol. argent. ser. II, 1902, pag. 54. — Pileis tenuibus, primo suborbicularibus, 2-5 mm. diam., centro roseo, margine matrici adnatis, latiuscule sterilibus albis, subfimbriatulis dein confluentibus, margine relaxato involuto; hymenio tenui, ceraceo subochroleuco v. subroseo laxe v. crebre granuloso, granulis hemisphæricis, 0,3-0,4 mm. alt. et diam., obtusis v. acutiusculis ac subpenicillatis; basidiis obovatis 12 × 8, sterigmatibus brevibus minutis sporis 8-10 μ. diam. hyalinis, minute apiculatis, guttulatis. 573

Hab. ad ramos aridos Paulowniæ imperialis La Plata in Argentina.

8. **Odontia acerina** Peck Rep. of the State botanist 1899, p. 847. — Effusa, tenuissima, crustacea, adnata, indeterminata, griseo-isabellina; verrucis minutissimis, papillatis, 1 vel pluri-pallide-ciliatis; sporis hyalinis, ellipsoideis, 7,5 × 4. 574

Hab. in ligno et in corticibus emortuis Aceris rubri, Montezuma, Amer. bor. — *O. rimosissimæ* valde affinis.

9. **Odontia Brinkmanni** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 88. — Ex albo luride alutacea; subiculo tenui, farinaceo-subcrustoso; aculeis subdistantibus, e granuloso acutato-fimbriatis, brevibus, $^1/_2$-1 mm. demum longis; sporis hyalinis, cylindraceis $3^1/_2$-$4^1/_2$ × 2-$2^1/_2$; basidiis clavatis, 12-14 × 4-5; hyphis 2-$2^1/_2$ μ. cr. 575

Hab. ad truncos Alni et Betulæ, in Polonia. — Habitus *Odontiæ papillosæ,* sed subiculo tenuiori et sporis minoribus bene

distincta. Primo detexit et claro Bresadola communicavit egregius mycologus W. Brinkmann.

10. **Odontia straminella** Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 131. — Effusa; subiculo albo, tenui, submembranaceo, margine fimbriato, sterili; aculeis albis, demum stramineis, subdistantibus, verruciformibus, minutis, apice multifidis, 500-650 μ. long.; sporis obovatis, 4-5 × 2,5-3 hyalinis; basidiis clavatis, 15 × 4; hyphis crasse tunicatis, 2-3 μ. latis. 576

Hab. ad ramenta lignea, conos Pini etc., prope Setubal Lusitaniæ.

11. **Odontia bicolor** Alb. et Schw. p. 270. — Syll. VI, p. 470. — *Hydnum subtile* Fr. Syst. Myc. I, p. 425! — Syll. VI, p. 476.

Hab. quoque ad truncos Pini silvestris et Betulæ albæ, in Polonia. — Sporæ hyalinæ, cylindraceæ, 5-7 × 2½-3; basidia clavata, 15 × 4-5; cystidia capitata, capitulo aculeato, 7-15 μ. diam. vel rarius glabro, 6-9 μ. Specimina originalia Schweinitziana in Herbario Link asservata vidi, quæ exacte concordant cum speciminibus *Hydni subtilis* Fr. Musei Upsaliensis (Bresadola Fungi polonici in Ann. Mycol. 1903, p. 87).

MUCRONELLA Fr. — Syll. VI p. 512, IX p. 218, XI p. 115, XIV p. 211, XVI p. 181.

1. **Mucronella Ulmi** Peck in Rep. of the State botan. 1900, p. 154. — Aculeis fasciculatis, 2-8 congestis, raro singulis, sæpe curvulis v. flexuosis, raro erectis, acutis, 2-3 mm. longis, griseis v. pallidis. 577

Hab. in ligno emortuo Ulmi, Westport, Amer. bor. — A *M. fasciculari* (Alb. et Schw.) Fr., aculeis griseis minoribus differt.

2. **Mucronella calva** (Alb. et Schw.) Fr. Hym. Europ. pag. 629. — Syll. VI, p. 513. — *Hydnum* Alb. et Schw. p. 271, t. X, f. 8.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Specimen polonicum habitu potius *Mucronellam aggregatam* Fr. sistit, nam aculei dense gregarii sunt, at quam in typica *Mucronella calva* breviores et tenuiores ita ut ad *Mucr. aggregatam* ducere nequeam. Sporæ hyalinæ, oblongæ, 4-6 × 2-3; basidia clavata, 15 × 4; hyphæ contextus aculeorum, 3-7 μ. Adest alter specimen quoque ad truncos *Pini* lectum, sed non in societate cum priore quod structura aculeorum, sporis etc. exacte concordat, sed aculei subiculo manifestissimo subtomentoso, ex hyphis irregularibus, tenuiter tunicatis, hic illic inflatis, 4-12 μ. latis conflato, insidentes,

quodque ad interim conjuncta relinquo. Forte in posterum distinguenda si formæ intermediæ non adsint (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 90).

3. **Mucronella Rickii** Oud. Bot. Centralbl. 1902, Beibl pag. 3 (Extr.). 578
— Subiculo nullo; aculeis albidis, vage distributis, solitariis vel numero 2-6-8 fasciculatis, primo erectis, strictis, postea decumbentibus, flexuosulis, cernuis v. hamatis, 3-5 mm. longis, subtilissimis, 100-120 μ. cr. subuliformibus; sporis ellipticis, hyalinis, inæquilateralibus, utrinque obtusis, continuis, eguttulatis, 7–9,5 × 3,5–4,5; sporophoris bacilli- v. fusiformibus, sporâ longioribus, ut videtur, monosporis.

Hab. in caulibus Asparagi officinalis exsiccatis aliisque quisquiliis et ramulis circa jacentibus, Valkenberg Hollandiæ.

4. **Mucronella fascicularis** (Alb. et Schw.) Fr. Hym. Europ. p. 629. — Syll. VI, p. 512. — *Hydnum* Alb. et Schw. p. 269, t. 10, f. 9.

Hab. quoque ad ligna mucida Pini silvestris, in Polonia. — Sporæ hyalinæ, subglobosæ, 5-8 × 4-6; basidia clavata, tetraspora, 25-30 × 5-7; hyphæ contextus 5-12 μ. latæ, tenues. Specimen polonicum formam sistit aculeis minus fasciculatis, fere subgregariis, habitu ad *Clavariam Bresadolæ* Quél. accedens (Bresadola Fungi polonici in Ann. Mycol. 1903, p. 90).

KORDYANELLA v. Höhn. Ann. Mycol. 1904, p. 273 (Etym. a gen. *Kordyana*, cui affinis) (absque diagnosi). — Pilei (verruculæ) hemisphærici, perexigui, sessiles. Basidia e nucleo centrali radiantia, subphialiformia, 2-3-raro 4-sterigmica. Sporæ oblongæ, continuæ, hyalinæ. Sec. auct. *Kordyanæ* affinis. — Forte haberi potest ut analogum sessile *Stilbi* sensu Juelii.

1. **Kordyanella austriaca** v. Höhn l. c. — Verruculis 30-60 μ. lat., 579
hemisphæricis vel depressis, hyalinis, intus brunneolis; basidiis e nucleo centrali celluloso radiatim divergentibus, hyalinis, 8-13 × 2 deorsum incrassatulis, subphialiformibus, sterigmata 2-3, raro 4 gerentibus; sterigmatibus tenuissimis, acutis, subdivergentibus; sporis copiosis oblongis v. breve cylindraceis, 2,5-4 × 1

Hab. in trunco subputrescente Pini nigricantis, Wiener Wald pr. Vindobonam Austriæ.

Fam. 4. **Thelephoraceæ** Pers.

CRATERELLUS Fr. — Syll. VI p. 514, IX p. 218, XIV pag. 212, XVI p. 181.

1. **Craterellus Queletii** R. Ferry in Rev. Myc. 1892, p. 96, t CXXVI, fig. 6. — Pileo campanulato, 3 cm. diam., submembranaceo, subumbonato, aurantiaco-fulvo; stipite solido, gracili flexuoso, 7 cm. longo, 5 cm. lato, duro, fibrilloso, concolori; lamellis rugiformibus, brevibus, vix ramosis, concoloribus; sporis ellipsoideis, pruniformibus 10 μ. hyalinis; carne alba; odore *Cantharelli cibarii.* 580

   Hab. in silvis montuosis prope Bagnères-de-Luchon in montibus Pyrenæis.

2. **Craterellus taxophilus** C. Thom, Bot. Gaz. 1904, n. 3. 581

   Hab. in foliis et ramulis dejectis putrescentibus Taxi canadensis Ithaca N. Y. Amer. bor. — Pusilla species vix 14–18 mm. alta.

THELEPHORA Ehr. — Syll. VI p. 521, IX pag. 220, XI pag. 115, XIV p. 212, XVI p. 182.

1. **Thelephora Martii** Sacc. et D. Sacc. *Th. albo-marginata* Mart. Versuch eines Comment. in Werk. Marcgrav und Piso. Münch. 1853 (Akad. Wiss.), nec Schw. ap. Berk. (1847). — Laxe gregaria, stipitata; pileo erecto cyathiformi, margine tenuiore albo subdentato; stipite pileoque intus zonato, pallide testaceo-fuscescente, hoc postremo extus pallidiore. 582

   Hab. ad ligna putrida in silvis ad fl. Japurá in terra Amazonica, Jan. 1820. — Fungus 12-15 mm. alt., stipes basi orbiculari plana ligno affixus, teres, 2–4 mm. long., pileus cyathiformis, uno latere breviore. Affinis *Th. caperatæ.*

2. **Thelephora vitellina** Plowr. in Journ. of Bot. 1901, p. 385. — Pileo pallide flavo-vitellino, flabelliformi, sursum expanso, margine superiore rimoso, lateraliter parvulo incurvato; hymenio ruguloso, azono; stipite deorsum attenuato, basi dilatato; sporis ovoideis, 3 × 1-1,5. 583

   Hab. ad ramos emortuos pineos inter muscos prope Boat of Garden N. B. Britanniæ. — Pileus 10-18 mm. cr., 20-30 mm. alt. Affinis *T. Sowerbeyi,* sed colore, habitatione, sporis sat diversa.

3. **Thelephora Amigenatska** P. Henn. in Engl. Bot. Jahrb. 1901, 584
p. 42. — Syll. XVI, pag. 1116 (nomen). — Papyraceo-coriacea, stipitata, flabellata, infundibuliformis v. plurilobata, brunnea vel flavo-ochracea; pileo radiato-striato v. subplicato 2-5 cm. diam., margine subintegro v. fisso-lobato interdum proliferante; hymenio levi v. striato, pruinoso, subochraceo; stipite farcto, tereti v. compresso, simplici v. ramoso, flavo-brunneo v. fusco 1-5 cm. longo, levi v. ruguloso; sporis subglobosis v. ellipsoideis, 6-8 × 4-6 flavidulis.

Hab. ad truncos, Kamerun Afr.

4. **Thelephora Braunii** P. Henn. in Engl Bot. Jahrb. 1901, p. 41. — 585
Syll. XVI, p. 1116 (nomen). — Coriacea, erecta, flavo-ferruginea, pruinosa ca. 4 cm, alta lataque; stipite late compresso, ca. 1,5 cm. longo, 5 mm. lato, sulcato, palmato-ramoso; ramis flabellatis apice palmatifidis vel cristatis, levibus obscurioribus; hymenio levi v. minute papillato, ferrugineo; sporis subglobosis 3,5-4, episporio levi, brunneo.

Hab. ad caudices, Kamerun Afr.

5. **Thelephora palmata** (Scop.) Fr. — Syll. VI, p. 529. — var. **ame-** 586
ricana Peck Rep. of the Stat. Bot. 1899, p. 857. — Ramis ultimis sæpe tenuibus, teretibus, acuminatis, apice albidis vel concoloribus.

Hab. in America bor.

6. **Thelephora terrestris** Ehrb. Cr. n. 179. — Syll. VI, p. 536, *Auricularia caryophyllea* Bull. tab. 278 et tab. 483, f. 6, 7, *Thelephora caryophyllea* Pers. Obs. I, p. 36 (non Schaeff.), *Thelephora laciniata* Pers. Syn. pag. 567, *Thelephora intybacea* Fr. Hym. Eur. p. 635 (non Pers.). — Syll. VI, p. 536.

Hab. quoque ad terram, in Polonia. — Sporæ fusco-ferrugineæ, 8-12 × 7-9. Species hæc quoad formam variabilissima, modo stipitata, stipite centrali vel laterali, sæpe cæspitosa, pileis concentricis (= *Th. intybacea* Fr.), interdum sessilis, pileo laterali, dimidiato (= *Th. laciniata* Pers.). *Auriculariam caryophylleam* Bull. l. c. huc referendam certum est, prout ex iconibus evidentissime patet; *Thelephora caryophyllea* Pers. (non Schaeff.) etiam huc pertinet fide speciminum originalium; *Thelephora intybacea* Fr. (non Pers.) quoque nulla nota vere specifice differentiali distincta. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 91).

7. **Thelephora exigua** Peck in Rep. of the State Botanist, 1901, 587
p. 953. — Pileo tenuissimo, submembranaceo tubæformi vel in-

fundibuliformi, leviter radiatim fibroso-striato, margine parce lacerato, pallide alutaceo 3-6 mm. lato; hymenio æquali vel substriato, pruinosulo-pubescenti, brunneo 4-6 mm. longo; sporis ellipsoideis 4 × 2.

Hab. ad terram, Westport Essex co., Amer. bor.

8. **Thelephora komabensis** P. Henn. F. Japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, pag. 736. — Terrestris; pileo tenui, membranaceo, infundibuliformi v. flabellato, margine crenulato-inciso v. subintegro, tenui, pallido, levi glabroque, 1-2 cm. lato longoque; stipite centrali v. laterali, pileo confluente, compresso, basi subbulboso-incrassato, pallido, pruinoso, 0,5-1 cm. longo, 1-1,5 mm. cr.; hymenio pallido, levi, glabro, vix striatulo, opaco; sporis subglobosis v. ovoideis, levibus, 3-5 × 3,5-4,5 hyalinis. 588

Hab. ad terram, Tokyo Japoniæ.

9. **Thelephora sparassoides** P. Henn. Fungi Indiæ orient. II in Hedw. 1901, pag. 324. — Caulicola, membranaceo-papyracea, confluens, cristata; pileo substipitato, flabellato, plicato, fisso, margine palmato-dentato, dentibus sæpe subulatis, cremeo, 5-7 mm. longo, 2-3 mm. lato; hymenio plicato, pallido; sporis subovoideis hyalinis levibus, 2-4 µ. diam. 589

Hab. in ramis emortuis Mussoorie, Arnigadh Indiæ orient.

10. **Thelephora pusiola** Pat. in Duss, Enum. champ. Guadel. 1903, p. 12. — Laminæformis; laminis triangularibus, albis, duris, minutis, integris v. incisis lobatis, glabris, levibus v. plicatis, subinde zonatis, in stipitem gracilem concolorem, glabrum, cylindraceum, lignosum tenuatis; hymenio infero, levi, brunneolo; basidiis clavatis 25 × 10, tetrasporis; sporis globoso-angulosis, incoloribus v. vix fuligineis, 6 µ. diam.; cystidiis nullis. 590

Hab. solitaria v. cæspitosa in lignis emortuis in silvis Bains-Jaunes Guadalupa (Duss). — Fungus 1 cm. alt., 5 mm. cr. — Var. **terrestris** Pat. l. c.: laminis angustioribus laciniatis, divergentibus, rigidis. Ad terram Matouba Guadalupa (Duss).

11. **Thelephora** (*Sebacina*) **ambigua** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 116. — Late effusa, arcte adnata, gelatinosa, pallida; hymenio subtuberculato-undulato, exsiccando collapso, levi; sporis hyalinis, obovatis vel subglobosis, 9-12 × 7-10; basidiis obovatis, 2-4-sterigmaticis, 15-10 × 10-12; hyphis contextus 1 $^1/_2$ crassis. 591

Hab. sub cortice Quercus in Polonia. — Forma tuberculata ad *Tremellam* nutans.

CLADODERRIS Pers. — Syll. VI p. 547, IX p. 222, XVI p. 185.

1. **Cladoderris mussooriensis** P. Henn. Fungi Indiæ or. II in Hedw. 592
1901, pag. 324. — Imbricato-subcæspitosa; pileo tenue coriaceo, subflabellato, sulcato, plicato, azono, velutino, isabellino, margine integro v. repando undulatoque, basi attenuato, interdum substipitato 1-4 cm. lato, 2-3 cm. longo; hymenio stramineo, ruguloso, costis subramosis, angustis radiantibus, haud verrucosis; sporis globosis v. subovoideis, hyalinis, echinato-asperatis 5-6 μ. diam.

Hab. ad terram Mussoorie, Arnigadh Indiæ orient.

2. **Cladoderris Pritzelii** P. Henn. in Hedw. 1903, p. (74). — Pileis 593
cæspitose imbricatis, apodis, basi decurrentibus, coriaceis, conchatis, sinuoso-crispatis, superne dense tomentosis, zonato-sulcatis, rugulosis, margine acutis, cinnamomeis, sinuosis, usque ad 8 cm. longis, 5 cm. latis; hymenio cinereo-ferrugineo, costis ramoso-radiantibus, sulcato-rugosis, verrucosis, velutinis; sporis subglobosis, intus punctulatis, hyalinis, levibus 3,5-4.

Hab. ad ligna emortua, pr. Kurauda, N. Queesland Australiæ (Pritzel).

STEREUM Pers, — Syll. VI p. 551, IX p. 222, XI p. 119, XIV p. 215, XVI p. 186.

1. **Stereum Burtianum** Peck Rep. St. Bot. 1903, p. 21, t. 0, f. 30-34. 594
Pileo tenui, submembranaceo, coriaceo, fibroso, subinfundibuliformi, vulgo dimidiato, ob fibras radiantes rivuloso, pallido in cervinum v. rufescentem vergente, nitidulo; margine erecto, expanso v. recurvo, radiatim striato, decurrente pallide badio v. ochraceo-badio; stipite brevi, solido, minute tomentoso v. pruinoso-tomentoso, subcinereo; sporis minutis, hyalinis, levibus, globosis v. subglobosis, 15-2 μ. diam.

Hab. ad terram inter dumeta, Ulster co. Amer. bor. — Pileus 8-16 mm. lat.; stipes 4-6 mm. alt., circ. 1 mm. cr. Interdum individua bina v. plura coalescunt.

2. **Stereum cupulatum** Pat. in Duss. Enum. champ. Guadel. 1903, 595
p. 23. — Sparsum v. approximatum, orbiculare, e resupinato cupuliforme, puncto dorsali affixum, coriaceum, durum, rigidum, extus glabrum, azonum, brunneum, margine integro v. sinuato, acuto; hymenio pruinoso, levi, concavo, sordide cinereo, prope marginem rubescenti; trama compacta, umbrina; sporis cylindraceo-ovoideis, incoloribus, 6 × 3; cystidiis nullis.

Hab. in cortice Pruni Dussii in silvis Bains-Jaunes Gua-

dalupa. — Fungus 6-8 mm. diam. Affinis *S. Coffearum*, sed cystidia nulla.

3. **Stereum versicolor** Fr. — Syll. fung. VI, p. 561. — var. **illyricum** G. de Beck in Zahlbruckn. Sched. ad Crypt. exs. Cent. IV, p. 446. — Pileis imbricatis late flabelliformibus, 4-7 cm. latis, antice rotundatis v. lobatis, basi angustatis et in stipitem brevissimum sæpe umboniformem attenuatis, tenuissimis chartaceo-membranaceis, ferrugineis demum versicoloribus, pulcre concentrice zonatis in margine acutissimo ochraceis, rarius purpurascentibus, zonis ferrugineis griseisve et breve strigoso-tomentosis adpresse pilosis purpureis; contextu sup. ferrugineo, sub hymenio pallido; hymenio levi, sicco rubiginoso-lutescente v. sæpius carneo; basidiis cylindraceis 37-50 μ. long.; cystidiis nullis; sporis oblongis 5 μ. l. 596

Hab. ad truncos Fagi silvaticæ in silvis subalpinis in M. Smolin Bosniæ et Carnioliæ.

4. **Stereum neocaledonicum** Har. et Pat. Journ. de Bot. 1903, p. 6. — Eximie imbricatum, tenue, coriaceum, pileis numerosis e basi communi ortis, margine prolificantibus, papyraceis, cuneiformibus, antice rotundatis, lobatis, fuscis, velutinis, postice nigricantibus glabrescentibusque, undique crebre zonato-sulcatulis; hymenio concavo, levi, nitide fusco-cinerescenti, non setuloso; contextu fusco radiante; hyphis laxiusculis, 4 μ. cr., in fasciculos facie tomentosos 50 μ. altos surrectis; cystidiis nullis; sporis non visis. 597

Hab. ad lignum mortuum, Mea, Nova Caledonia (Bernier). — Pileus usque 15 cm. long., $^1/_2$ mm. cr., habitu fere *Thelephoræ adustæ* Lev., quæ cystidiis rigidis rufis ex hymenio 4-20 μ. excedentibus dignoscitur et tunc *Hymenochæte adusta* (Lév.) Pat. l. c. vocanda est.

5. **Stereum Huberianum** P. Henn. Fungi paraenses II in Hedw. 1902, p. 15. — Mycelio membranaceo, pallido, effuso; pileis sparsis v. gregariis, subpapyraceo-coriaceis, sicco rigidis, flabellatis, sæpe inciso-lobatis v. subpalmatifidis, fulvis, longitudinaliter striatulis, levibus, glabris, $^1/_2$-2 cm. longis latisque, in stirpem late compressam protractis v. sessilibus; hymenio paullo pallidiori, levi, glabro, subpruinoso; sporis globosis, levibus 3,5-4,5 hyalinis. 598

Hab. in ramulis, Pará Amer. austr.

6. **Stereum scalare** Karst. Fungi nov. Loennb. 1904, p. 9 (Finska Vetensk. Soc.). — Pileis suberosis, rigidis, dimidiatis, dense scalari-imbricatis, subinde connascentibus, pallescentibus, in spadiceum 599

leviter vergentibus tomentosis, parvis; hymenio pallido vel lutescenti-pallido, vulgo levi.

Hab. supra terram in regione Kuopioënsi Sibiriæ, Aug. 1903 (O. A. F. Lönnbohm).

7. **Stereum ochroleucum** Fr. Hym. Europ. pag. 639, Brinkmann. Westf. getrockn. Pilze, Lief. I, n. 49. — Syll. VI, p. 566 — *Stereum sulphuratum* Berk. et Rav. North. Amer. Fungi n. 236. — Syll. VI, p. 566.

Hab. quoque ad truncos in Polonia. — Forma typica hujus speciei, rarissime in Europa obvia, optime a *Stereo hirsuto,* cui valde affinis, distincta, sc. pileo resupinato-effuso, margine tantum reflexo, e leniter sulphurato albido, hymenio avellaneo-isabellino vel avellaneo-fuscidulo, canescente; sporis hyalinis, cylindraceo-subcurvulis, 6–10 × $2^1/_2$-$3^1/_2$; basidiis clavatis 40–45 × 4-5. Specimina, quæ in exsiccatis edita sunt, maxima ex parte, prout etiam specimina herbarii friesiani, a Friesio ipso tamen non determinata, ad *Stereum hirsutum* forma *resupinata* referenda sunt. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 91).

8. **Stereum subcostatum** Karsten in Hedw. 1881, p. 178. — Syll. VI, p. 570. *Stereum album* Quél. Quelq. Esp. 1882. — Syll. VI, p. 571.

Hab. quoque ad ramos et truncos Alni, Betulæ, Salicis, Quercus, Coryli, in Polonia. — Sporæ hyalinæ, cylindraceæ, uno latere depressæ, 5 $^1/_2$-8 × $2^1/_2$-$3^1/_2$; basidia clavata, 20-25 × 4-6; hyphæ tenuiter tunicatæ, septato-nodosæ, 3–6 μ. latæ. Bene evolutum hymenio gaudet laxe tuberculoso, tuberculis sæpe valde elongatis, more *Raduli penduli* Fr., cui valde accedit et a quo forte non specifice distinctum. Forma ad *Alnum* ex albo pallide ochroleuca, forma ad *Betulam, Corylum* etc. hymenio demum læte aureo-incarnato. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

9. **Stereum rufum** Fr. Epicr. p. 553. — Syll. VI, p. 575 — *Thelephora* Fr. El. p. 127 (1828), *Thelephora rufo-marginata* Pers. Myc. Eur. I, pag. 124, *Tubercularia pezizoidea* Schw. (1831) Syn. Am. bor. p. 301, n. 3013, *Hypocrea Richardsonii* Vetestergren Micr. rar. n. 404, an Berk. et Mont.?

Hab. quoque ad ramos Populi tremulæ, in Polonia. — Specimina americana *Tuberculariæ pezizoideæ* a cl. prof. Ed. A. Burt missa cum speciminibus *Sterei rufi* Fr. exacte concordant (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 92).

10. **Stereum odoratum** Fr. Epicr. p. 553. — Syll. VI, p. 587 — *Thelephora* Syst. Myc. I, p. 445, *Stereum alneum* Fr. Epicr. p. 553. — Syll. VI, p. 587 — *Thelephora* Syst. Myc. I, p. 446, *Stereum suaveolens* Fr. Epicr. p 553, *Thelephora* El. I, p. 208.

Hab. quoque ad truncos Pini silvestris, Alni et Populi tremulæ, in Polonia. — Resupinatum et late effusum interdum margine subpileato, coriaceum, in annosis stratosum, ex hyphis rigidis, ramosis, 1-2 1/2 raro 3 crassis, conflatum, colore e pallido alutaceo vel pallide gilvo; sporis hyalinis, obovato-oblongis, 4 1/2-6 ≈ 2-3; basidiis 4-sporis 18-20 ≈ 4-5; odore tantum in vegeto manifesto. Hucusque specimina ad *Alnos* obvia mihi, semper sterilia visa ideoque in Fung. Kmet. p. 44, n. 155, ex identitate structuræ, ad *Stereum alneum* Fr. speciem ad truncos *Salicis Capreæ* vigentem duxi, quæ, cum sporis gaudeat globosis, diversa est, quæque contra ad *Corticium portentosum* Berk. probabiliter ducenda. Species Berkeleyana structura, forma et colore cum *Stereo odorato* Fr. concordat, sed, teste Burt in litteris, sporas habet globosas. Specimina ab amicis americanis mecum benevole communicata sterilia inveni. (Bresadola. Fungi Polonici in Ann. Mycol. 1903, p. 92).

11. **Stereum quercinum** Potter in Trans. Engl. Arbor. Soc. New Castle-on-Tyne 1902, p. 1-8 (extr.) fig. 1-3 (Absque diagnosi). — Resupinatum, coriaceum, in rimis corticis nidulans, margine vix emergente, pallido griseo-brunneum, ambitu sæpe pallidiore; basidiis filiformibus apice clavato-truncatis; sterigmatibus subquaternis; sporis ellipsoideis, utrinque rotundatis, 8,5 ≈ 4,3, hyalinis. 600

Hab. in cortice Quercus Roboris, cui morbum cancerosum affert, in Anglia variis locis. — Forte affine *St. frustuloso*.

HYMENOCHÆTE Lév. — Syll. VI p. 588, IX p. 227, XI p. 122, XIV p. 217, XVI p. 188.

1. **Hymenochæte fisso-lobata** P. Henn. F. Amaz. I p. 172 (Hedw. 1904) — Pileis ramicolis, coriaceis, flabellatis, stipitatis v. subsessile confluentibus, ramosis, superne atrocinnamomeis, radiato-striatis rugosis vel sulcatis, margine ad medium fisso-lobatis, hymenio cinereo-ferrugineo, pruinoso-subsetuloso, setulis ca. 20 ≈ 3 μ., fuscis septatis vel ramosis; sporis.... (non visis). 601

Hab. ad lianas viventes, Rio Juruá, Sao Jao Amazoniæ (Ule). — Forte aptius *Thelephoræ* adscribenda, tamen *Hym. formosæ* subsimilis.

2. **Hymenochæte crateriformis** P. Henn. F. Amaz. I p. 172 (Hedw. 602

1904). — Pileo coriaceo, regulariter infundibuliformi, castaneo velutino, obscurius zonato, margine tenui, pallidiori, integro vel crenulato, 5-7 cm. lato, 5-6 cm. longo; stipite centrali æquali tereti, lignoso, ferrugineo-tomentoso, basi discoideo, incrassato, 3-5 cm. longo, 4-5 mm. crasso; hymenio ferrugineo, velutino-setuloso, setulis filiformibus, flexuosis, simplicibus, apice obtusis, flavido-fuscidulis, 40-80 × 3-3½; sporis non conspicuis.

Hab. ad truncos putrescentes Rio Madeira ad Marmellos Amazoniae (Ule). — Affinis *H. infundibuliformi*.

3. **Hymenochæte ussanguensis** P. Henn. in Engl. Bot. Jahrb. 1901, 603
p. 255. — Sacc. Syll. XVI, p. 1117 (nomen). — Corticola, effusa, resupinata, cinnamomea, velutina, subiculo tenui, albido-byssino, setulis simplicibus v. subramosis, obtusiusculis, flavidis, 30-60 × 4-5; sporis subglobosis, 6-8 μ. diam., episporio subfuscidulo, levi.

Hab. in ramis arboris indeterminatæ, in montibus, Kinga Africæ orient.

4. **Hymenochæte septobasidioides** P. Henn. F. Amaz. I p. 172 (Hedw. 604
1904). — Pileo longitudinaliter subresupinato effuso, pileis subliberis, tenue coriaceis vel membranaceis, subdimidiatis sæpius seriatim confluentibus, atrocinnamomeis, concentrice sulcatis velutino-fibrosis, ca. 5 mm. longis, margine tenuibus, interdum pallidis; hymenio subcinereo, velutino-setuloso, setulis filiformibus, flexuosis, ramosis, ca. 10-20 × 2½-3½; sporis subglobosis, hyalinis, levibus, 2-2½ μ.

Hab. ad ramos Sapindaceæ cujusdam, Rio Juruá, Menino de Deus Amazoniæ (Ule). — Hic *Septobasidio velutino*, hinc *Hymen. elegantissimæ* cognata.

5. **Hymenochæte arida** (Karst.) — Sacc. Syll. IX, p. 228 — *Hymenochætella arida* Karst. Finl. Basidv. p. 428.

Hab. quoque ad truncos Alni et Betulæ, in Polonia. — Sporæ hyalinæ, subcylindraceæ, uno latere subdepressæ, 6-8 × 2-2¾; basidia clavata, 15-20 × 4-5; setulæ cuspidatæ, 100-150 × 6-8; hyphæ 3-4 μ. Cum speciminibus originalibus comparavi, nec sporas tantum ½-1½ μ. latas, uti habet cl. Karsten, vidi. (Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 93).

6. **Hymenochæte fuliginosa** (Pers.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 93 non Lév. *Thelephora* Pers. Myc. Europ. I, p. 145. *Stereum fuliginosum* Fr. Hym. Eur. p. 645. — Syll. VI p. 594.

Hab. quoque ad ramos Pini silv., in Polonia. — Setulæ fulvæ, 80-110 μ. long., basi ventricosa, 8-9 μ. cr., 40-50 μ. pro-

minentes; basidia clavata; hyphæ 3-4 μ. crassæ. Sporas nondum vidi. Ab *Hymenochæte fuliginosa* Lév., sensu Berk., specie exotica, omnino diversa (Bres. l. c.).

CORTICIUM Fr. — Syll. VI p. 603, IX p. 230, XI p. 124, XIV p. 219, XVI p. 189.

1. **Corticium usambarense** (P. Henn.) Sacc. et D. Sacc., *Aleurodiscus usambarensis* P. Henn. in Bot. Jahrb. 1904, p. 43. — Resupinato-subpezizoideus, extus albidus subfibrillosus, margine evoluto; hymenio subceraceo, pallide roseolo v. flavidulo, levi 0,5-2 cm. diam.; basidiis clavatis, intus grosse oleoso-roseo-guttulatis, 50-80 × 15-25, plerumque 2-sterigmaticis; sporis oblonge ovoideis v. ellipsoideis, oleoso-guttulatis, 20-25 × 11-16, episporio hyalino, granuloso. 605

Hab. in ramis emortuis, Bomule, Ost Usambara, Afr. orient. (Zimmermann).

2. **Corticium dendriticum** P. Henn. Fungi costaricenses I in Hedw. 1902, p. 102. — Carnoso-ceraceum, pallide carneum, dendroideo-ramosum v. radiato-effusum, margine sicco reflexo, albo-villosulo; hymenio ceraceo, pruinoso, carneo, sicco rimoso; basidiis clavatis, 2-4-sterigmaticis, 20-28 × 7-8; sporis subglobosis, subroseis, levibus, 4-5 μ. diam. 606

Hab. in truncis, San José de Costa Rica, Amer. centr.

3. **Corticium abnorme** P. Henn. F. Amaz. I. p. 186 (Hedw. 1904). — Foliicola, paginam inferiorem occupans, effusum, isabellinum, margine radiatim byssinum, hymenio verrucoso, verrucis hemisphæricis, ca. 1 mm. diam., contextu fibroso, hyphis hyalinis, hamato-cirratis, ca. 2-2½ μ. crassis; sporis subglobosis, 1-guttulatis, 2½-3½ μ., episporio granuloso, hyalino-flavidulo. 607

Hab. ad folia coriacea Myrtaceæ cujusdam. Rio Juruá Marary Amazoniæ (Ule). — Species quoad situm in foliis prædistincta, ob hyphas apice hamatas ad *Septobasidium* nutat.

4. **Corticium rubro-pallens** Schw. Syn N. A. Fung. pag. 168 (sub *Thelephora*), *Corticium rubro-canum* Thüm. Bull. Torr. Bot. Club VI, p. 95, Myc. univ. n. 409. — Syll. VI, p. 632.

Hab. quoque ad ramos Alni, in Polonia. — Sporæ cylindraceo-curvulæ, hyalinæ, 5½-7½ × 2-2½; basidia clavata, 20-25 × 6; hyphæ conglutinatæ 2-3 μ. Specimen hic exhibitum juvenile, minus evolutum, sed vix dubie ad *Corticium rubro-pallens* Schw. ducendum In speciminibus americanis a cl. Burt benevole mecum communicatis, sporæ 5½-6 × 1½-2, basidia 30-35 × 6 et hyphæ basales

receptaculi optime evolutæ 4-7 μ. crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 97).

5. **Corticium komabense** P. Henn. in Engl. Jahrb. 1902, XXXVI, 608
p. 38. — Erumpens, papyraceo-ceraceum tenue, orbiculare dein explanatum, confluens, 2-6 mm. diam., medio subplicato, margine elevato, tenui, levi; hymenio griseo-brunnescenti, pruinoso; basidiis clavatis, 15-18 × 4-5, 4-sterigmaticis; sporis ovoideo-subglobosis, hyalinis, 3,5-4 × 3-3,5.

Hab. ad ramos emortuos Quercus glanduliferæ, Komaba Japoniæ (P. Suzuki).

6. **Corticium Torrendii** Bres. Myc. Lusitanici novi, in Atti. R. Acc. 609
di Sc. Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1902, p. 131. — Late effusum, adnatum, crassum, membranaceo-subtomentosum, margine mox similari sublibero; hymenio pallido, ætate subfumoso, in vegeto laxe tuberculoso, sub lente pruinoso; sporis hyalinis, subglobosis, 8-10 × 7-8,5; basidiis clavatis, 25-30 × 6-7; hyphis vix distinctis, substantiam subamorpham efformantibus, 3-4 μ. latis.

Hab. ad ramos Oleæ europææ prope Setubal Lusitaniæ (Torrend!).

7. **Corticium Ulmi** Lasch Bot. Zeit. 1853. p. 235. — Syll. VI p. 618.
Hab. quoque ad truncos Ulmi campestris et Betulæ in Polonia. — Sporæ subglobosæ, hyalinæ, 5-7 × 4½-6; basidia clavata, 20-25 × 5-7; hyphæ irregulares, 4-5 μ. inferne usque ad 9 μ. crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 95).

8. **Corticium Zimmermanni** Sacc. et Syd. Syll. XVI, p. 117 (nomen), 610
Cortic. javanicum A. Zimm. in Centralbl. f. Bakter. Paras. 1901, VII, p. 103, f. *A-C*, nec *C. javanicum* (Henn.) Sacc. et Syd. — Membranaceum truncum ramosque subinde late ambiens, carneum vel flavidum, matrici hyphis mycelicis laxis adhærens; cystidiis nullis; basidiis clavatis, tetrasporis; sterigmatibus gracilibus, 4-6 μ. long.; sporis piriformibus, hyalinis, apiculatis, 9-12 × 6-7 (in aqua mox germinantibus).

Hab. in truncis ramisque Coffeæ arabicæ et C. liberiæ, quibus morbum, *Djamur upas* vulgo dictum, affert in ins Java. — Species interdum nascitur in eadem insula, in Thea, Bixa, Bœhmeria.

9. **Corticium albo-ochraceum** Bres. Fungi Polonici in Ann. Myc. 1903, 611
p. 96. — Effusum, fibrilloso-byssinum, ochroleucum vel luride

ochraceum, ambitu fibrilloso-fimbriato; hymenio levi, subrimoso sub lente pruinato; sporis hyalinis, circulo interno fulvo. punctatis, subamygdaliformis. 5-6 × 3½-4; basidiis clavatis, 20 × 3-4; hyphis irregularibus, septatis, granuloso-farctis, 2-4 μ. crassis.

Hab. ad truncos Alni, in Polonia. — *Corticio ochroleuco* Bres. simillimum, sed structura diversum.

10. **Corticium geogenium** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 98. — Late et interrupte effusum, membranaceo-subflocculosum, ambitu subsimilari, e niveo pallescens; hymenio levi, haud rimosis; sporis hyalinis, obovatis, interdum uno latere subdepressis et 1-guttatis, 8-9 × 5-6; basidiis clavatis, 25-30 × 6-7; hyphis subhymenialibus, 4 μ. cr., basalibus 6 μ. crassis. 612

Hab. ad terram sabulosam, in Polonia. — Unam alteramve cellulam clavatam, vacuam, levem, prominentem, latitudinis basidiorum, observavi, sed vix cystidia crederem.

11. **Corticium terrigenum** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 98. — Interrupte effusum, flocculoso-submembranaceum, ambitu furfuraceo, album, pallens; hymenio subundulato, irregulari sporis hyalinis, oblongis v. frequentius fusiformibus hilariterque depressis. 14-15 × 5-6; basidiis clavatis, 30-35 × 9, sterigmatibus usque ad 12 μ. longis; hyphis irregularibus, 6-10 μ. crassis. 613

Hab. ad terram, in Polonia.

12. **Corticium niveum** Bres. Fungi Polonici in Ann. Mycol. 1903, pag. 98. — Late effusum, flocculoso-submembranaceum, ambitu subsimilari, e niveo pallido-subcremeum; hymenio levi, in sicco flocculoso-fatiscente; sporis hyalinis, oblongis, 7-8 × 3-3½; basidiis clavatis, 24-26 × 5-6; hyphis 2½-4 μ. crassis, septato-nodosis. 614

Hab. ad ligna Betulæ, in Polonia. — Habitu et colore *Corticio sero* Pers. simillimum, sed sporis præcipue bene diversum.

13. **Corticium lactescens** Berk. Outl. p. 274. — Syll. VI, p. 618.

Hab. ad truncos Ulmi campestris, in Polonia. — Sporæ hyalino-stramineæ, subgloboso-ellipticæ, 6-8 × 4½-6, granuloso-farctæ; basidia clavata, 40-45 × 6-8; vasa lactifera subcystidiformia, vix prominula, apice attenuata; hyphæ septato-nodosæ, 3-4 μ. crassæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 95).

14. **Corticium leve** Pers. Disp. p. 30, nec Fr., *Thelephora laxa* Pers. Myc. Eur. I. p. 143, *Corticium evolvens* Fr. Epicr. pag. 557. — Syll. VI, p. 604.

Hab. quoque ad truncos Tiliæ, Salicis, Ulmi, Coryli et Pini, in Polonia. — Species hæc variabilissima, tenuis vel crassa,

levis v. tuberculosa, interdum quoque subpileata. *Thelephora papyracea* Schrad. Spic. pag. 187 ab auctoribus, duce Persoonio, huc ducta, absque dubio est forma juvenilis *Merulii Corii* Fr. *Corticium leve* Fr., e speciminibus in Museo Kewensi asservatis, est *Peniophoræ* sp., de qua infra (Bresadola, Fungi polonici, in Ann. Mycol. 1903, pag. 94).

15. **Corticium subleve** Bres. Fungi Polonici in Ann. Mycol. 1903, 615
p. 95. — Late effusum, membranaceum, subsecedens, *pallidum* v. leviter *carneolum,* ambitu fimbriato-subfibrilloso; hymenium e tuberculoso levi, vix rimoso; sporis hyalinis, obovatis, $3^1/_2$-$4^1/_2$ × $2^1/_2$-$2^3/_4$; basidiis clavatis, 15-16 × 4; hyphis contextus septato-nodosis, tenuibus, 2-3 μ. crassis.

Hab. ad truncos Alni, in Polonia. — Habitu ad *Corticium leve* accedit.

16. **Corticium pruinatum** Bres. Fungi Polonici in Ann. Mycol. 1903, 616
p. 98. — Late effusum, byssaceo-tomentosum, molle, laxe contextum, ambitu subsimilari, demum secedenti-revolutum, ex albido mox luride cremeum; hymenio exsiccando flocculoso-fatiscente; sporis hyalinis, amygdaliformibus, 5-7 × 3-$3^1/_2$; basidiis clavatis, 18 × 6-7; hyphis subhymenialibus, 7-8 μ., basalibus usque ad 15 μ. crassis, septatis, vix nodosis.

Hab. ad ramos corticatos Frangulæ Alni, in Polonia. — Species valde *Corticio isabellino* (Schroeter) Eichler affinis, sed forma sporarum, colore et hyphis subhymenialibus latioribus differt.

17. **Corticium frustulosum** Bres. Fungi polonici in Ann. Mycol. 1903, 617
p. 98. — Late effusum, flocculoso-submembranaceum, molle, ambitu pruinato, ex albido luride alutaceo-subumbrinum; hymenio levi, subpruinoso, minute rimoso; sporis hyalinis, subglobosis, majuscule apiculatis, 7-10 × 7-8; basidiis clavatis, 20-25 × 10-11, 2-4-sterigmaticis, sterigmatibus usque ad 15 μ. longis; hyphis principalibus usque ad 10 μ. crassis et fuscidulis.

Hab. sub cortice Populi tremulæ, in Polonia.

18. **Corticium tephroleucum** Bres. in P. Strasser, Zweiter Nachtr. zur 618
Pilzflora des Sonntagberges in Verhandl. d. k. k. zool.-bot. Ges. in Wien 1902, p. 430. — Late effusum, adglutinatum, ceraceum, ambitu e pruinato mox similari e griseo-pallidum vel ex albo cremeum; hymenio laxe subtuberculoso, ætate rimoso; sporis obovatis, 9-12,5 × 6-8,5 hyalinis; basidiis clavatis, 20-25 × 7-8; hyphis contextus mox grumoso-collapsis, 4-5 μ. crassis.

Hab. ad corticem truncorum Piri communis, Sonntagsberg,

Austria bor. — Sub duabus formis obvium. Prima e grisea vel griseo-subargillacea pallescens, secunda ex alba cremea. Structura et cetera omnia identica. Forte hæc diversitas e tempore vegetationis pendet, nam forma grisea mense Januario lecta et forma alba mense Februario.

19. **Corticium polygonium** Pers. Disp. p. 30. — Syll. VI p. 627.

Hab. quoque ad ramos Populi tremulæ, in Polonia. — Sporæ cylindraceo-curvulæ, hyalinæ, 8–12 × 3 4; basidia clavata, 30-35 × 6-7; inter basidia et contextum adsunt cellulæ obverse obovatæ, vacuæ, tenuiter tunicatæ, numquam prominentes, sed semper immersæ, 40-50 × 15-20 (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 97).

20. **Corticium cinereo-carneum** P. Henn. Fg. S. Paul. III, pag. 197 (Hedw. 1904). — Effusum, tenue crustaceo-membranaceum, cinereo-carneum, pruinosum, margine conformi, contextu fusco-subvinoso, fimbriato; basidiis clavatis, 15-20 × 8-10; sporis globosis, levibus, hyalinis, 8-10 μ. 619

Hab. ad truncos, Alto da Serra Iponema, S. Paulo Brasiliæ.

21. **Corticium isabellinum** (Schroeter) Eichler. ap. Bres. Fungi Pol. in Ann. Mycol. 1903, p. 97, *Hypochnus isabellinus* Schroeter Pilz. Schl. I, p. 417, nec Fries. — Effusum, isabellinum, tenue; sporis hyalinis, obovatis, 4 ½-6 × 3-3 ½; basidiis clavatis, 18-20 × 4-5, hyphis subhymenialibus 3-5 μ.; hyphis basalibus, usque ad 15 μ. cr. 620

Hab. quoque ad ramos Coryli, in Polonia.

22. **Corticium alutaceum** (Schrad.) Bres. Fungi Kmet. pag. 46. Ita vocandum *Corticium radiosum* Fr. Epicr. pag. 560. — Syll. VI, pag. 611. 621

Hab. quoque ad truncos Pini silvestris et ad ligna Betulæ. — var. **molle** (Karst.) Bres. l. infra cit., *Corticium granulatum* var. *molle* Karsten Hattsv. II, p. 147. Ad truncos Pini silv., etiam in Polonia. Hæc varietas meo sensu ad *Corticium alutaceum* potius ducenda, a quo differt sporis et hyphis aliquantulum majoribus (Bresadola, Fungi polonici in Ann. Mycol. 1903, pag. 94).

23. **Corticium sulphureum** Pers. Obs. I, p. 38, nec Fr.

Hab. quoque ad ligna Quercus, in Polonia. — Sporæ hyalinæ, subglobosæ, asperulæ, 4-5 × 3-4; basidia clavata, 16-20 × 6-7. Meo sensu *Corticium fumosum* Fr. et *Phlebia vaga* Fr. (cfr. Syll. VI p. 613 et 698) haud specifice sunt distincta (Bresadola, Fungi Polonici, in Ann. Mycol. 1903, p. 96).

24. **Corticium atrovirens** Fr. Epicr. p. 562 — Syll. VI p. 614. — *Thelephora* Fr. El. I, p 202, *Corticium cærulescens* Karst. Hattsv. II, p. 154, *Hypochnus chalybæus* Schroet. (an Pers.?) Fl. Schl. I, pag. 416.

Hab. quoque ad truncos putridos Alni glutinosæ, in Polonia. — Sporæ globosæ, 3 μ. diam.; basidia clavata, 15–20 × 4; hyphæ septato-nodosæ, 2-3 μ. Color luride cæruleus, sæpe pruina flavo-viridi conspersus (Bresadola, Fungi Polonici, in Ann. Mycol. 1903, p. 96).

25. **Corticium botryosum** Bres. Fungi Polonici in Ann. Mycol. 1903, 622
pag. 99. — Late effusum, flocculosum, ambitu subsimilari, demum secedenti subrevoluto, album, pallescens; hymenium lacunoso-pulverulento; sporis hyalinis, fusoideo-ventricosis, utrinque apiculatis, 7–9 × 4; basidiis clavatis, cæspitose aggregatis, 4–6-sterigmaticis, 20–25 × 8–10; hyphis septatis, sæpe ad septa nodosis, 7–9 μ. crassis.

Hab. ad ligna Pini, in Polonia. — A *Corticio fusisporo* (Schröt.) optime distinctum.

26. **Corticium Eichlerianum** Bres. Fungi Polonici in Ann. Mycol. 1903, 623
pag. 95. — Effusum, membranaceum, subsecedens, ex albido pallide subisabellinum v. subcarneolum, ambitu pruinato-subfimbriato; hymenio levi, haud rimoso; sporis hyalinis, cylindraceo-curvulis, 6-8 × $2^1/_2$-$3^1/_4$; basidiis clavatis, 30-35 × 7-8, sterigmatibus usque ad 8 μ. longis; hyphis crasse tunicatis, 4–6, inferne, 8 μ. crassis.

Hab. ad ramos Quercus, in Polonia. — A *Corticio sublevi* habitu non distinguendum.

27. **Corticium chartaceum** Pat. in Duss Enum. Champ. Guadel. 1903, 624
p. 19. — Resupinatum, late effusum, tenue, coriaceo-membranaceum, glauco-cinereum, sub vitro pruinosum, subpellucidum, margine similari, superficie continua, levi, trama alba, dura, 60–100 μ. cr.; cystidiis emergentibus, 30-50 × 12, copiosis, acutis, incoloribus, parte libera aspero-incrustatis; sporis incoloribus, ovoideo-oblongis, 7 × 4.

Hab. ad truncos putres Simarubæ amaræ, in stagno Walkanaers Guadalupa. — *C. giganteo* subaffine.

28. **Corticium lætum** (Karst.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 94, *Hyphoderma lætum* Karst. Revue Myc. 1889, Sacc. Syll. X, p. 530, *Corticium hypnophilum* Karst. Rev. Myc. 1890.

Hab. quoque ad truncos Alni et Coryli, in Polonia. — Sporæ oblongo-obovatæ, interdum uno latere subdepressæ, hyalinæ, 10-

14 × 6-8; basidia clavata, 4-sterigmatica, 35-50 × 7-12; hyphæ contextus septatæ, haud nodosæ, irregulares, 4-10 μ. crassæ. Cum Speciminibus a cl. Karsten benevole missis comparavi, nec differentiam inveni. Forte ad *Corticium auroram* Berk., mihi ignotum, ducendum (Bres. l. c.).

29. **Corticium deflectens** Karst. Krit. Ofv. p. 414, *Grandinia deflectens* K. Hattsv. II, p. 239. — Syll. VI, p. 503.

Hab. quoque ad ramos et truncos Salicis et Frangulæ Alni, in Polonia. — Sporæ oblongæ, hyalinæ, 6-8 × 2½-3; basidia clavata, 25 × 5-6; hyphæ 2-4 μ. Cum speciminibus authenticis comparavi, in quibus sporas ut supra inveni, nec prout habet Karsten l. c. (Bresadola, Fungi polonici in Ann. Mycol. 1903, pag. 95).

30. **Corticium Queletii** Bres in Nuovo G. Bot. Ital. 1901, pag. 170, 625
Corticium calceum Quèl. olim, non in Fl. Myc., nec Pers., nec Fr. — Ex orbiculari effuso-confluens, membranaceo-molle, adnatum, margine primitus subfimbriato dein similari et libero, ex albo pallide crustulinum; hymenio subruguloso, ætate late rimoso; sporis oblongis, 8-9 × 3-4; basidiis clavatis, 35-40 × 5-6; hyphis contextus septato-nodosis, tenuiter tunicatis, 3-4,5 μ. cr.

Hab. in ramis corticatis Abietis pectinatæ in Jura (Quélet), Helvetia pr. Neuchâtel (Morthier) et Vallombrosa Etruriæ (Cavara).

31. **Corticium acerinum** Pers. var. **dryinum** Pers. Syn. p. 581 (sub 626
Thelephora) Stereum acerinum (Pers.) Fr. — Syll. VI p. 687.

Hab. quoque ad corticem Æsculi Hippocastani, in Polonia. — Sporæ 11-14 × 6-8. — var. **macrospora** Bres. Fungi Polonici, in Ann. Mycol. 1903, pag. 96. Ad ramos Corni sanguineæ, in Polonia. Sporæ ovato-oblongæ, 15-20 × 6-9; basidia clavata, 70-100 × 10-12; paraphyses 4-6 μ. crassæ; hyphæ 3-4 μ. Species hæc quoad dimensionem sporarum et basidiorum variabilissima!

32. **Corticium centrifugum** (Lév.) Bres. Fungi Polonici in Ann. Myc. 627
1903, pag. 96, *Rhizoctonia centrifuga* Lév. Ann. Sc. Nat. 1843, pag. 225.

Hab. ad truncos Betulæ, Populi et Pini, in Polonia. — Sporæ hyalinæ, oblongæ, 5-7 × 3-4; basidia clavata, 20-25 × 5-6; hyphæ tenues, septato-nodosæ, 3-5 μ. Sclerotia non vidi. A *Cort. arachnoideo* Berk. notis micrologicis distinctum (Bres. l. c.).

33. **Corticium Typhæ** (Pers.) Fuckel Symb. pag. 27, *Athelia Typhæ*

Pers. Myc. Eur. I, pag. 84, *Athelia scirpina* Thüm. Myc. Univ. n. 1505! *Corticium scirpinum* Winter Pilze p. 340.

Hab. ad culmos et folia Scirpi silvatici et Caricis sp., in Polonia. — Sporæ hyalinæ, oblongæ, subnaviculares, 18-27 × 7-8; basidia clavata, 2 4 sterigmatica, 25-35 × 8-10; hyphæ irregulares, 2-5 μ. latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, pag. 97).

34. **Corticium muscicola** Bres. Fungi Polonici in Ann. Mycol. 1903, 628
p. 96. — Interrupte effusum, membranaceum, ex albido luride alutaceum, ambitu fibrilloso-byssinum; hymenio e muscis undulato, secus levi, vix rimoso; sporis hyalinis, obovatis, 4-4$^1/_2$ × 2-2$^1/_2$ guttulatis; basidiis clavatis, 15-18 × 4-5; hyphis subhymenialibus tenuibus, 3-4 μ. contextus rigidis, 5-8 μ. sæpe ad septa nodosis.

Hab. ad muscos, in Polonia.

35. **Corticium chlamydosporium** Burt Ann. Rep. N. Y. State Mus. 629
1901, n. 54, p. 154 (Diagnosis l. c. desideratur).

PENIOPHORA Cooke — Syll. VI pag. 640, IX p. 237, XI p. 128, XIV p. 223, XVI p. 193. — Cfr. *Kneiffia,* infra.

1. **Peniophora amaniensis** P. Henn. in Bot. Jahrb. 1904, p. 43. — 630
Crustaceo-effusa, subcarnescens, pallide flavida, ambitu pallido byssacea; hymenio minute verrucoso; cystidiis sparsis, subulatis, granuloso-verrucosis, hyalinis, apice obtusis, 20-40 × 5-8; basidiis subclavatis, 10-14 × 3,5; sporis ovoideis vel ellipsoideis, hyalinis, 1-2-guttulatis, 3,5-4,5 × 2,5-3.

Hab. in silvis sempervirentibus supra Amani, Ost Usambara Africæ orient. (Engler).

2. **Peniophora Coffeæ** Zimm. in Centr. f. Bakter. Paras. 1901, n. 3, 631
pag. 102. — Adpressa, tenuis, subcoriacea, usque 5 mm. diam., margine radiato-fimbriato, læte flavido; hymenio rubiginoso-brunneo, velutino; cystidiis solitariis, conico-oblongatis, supra basidia eminentibus, crasse tunicatis, apice acutis, 80-95 × 8, rufis; basidiis tetrasporis; sterigmatibus 3 μ. longis; sporis hyalinis, levibus, globosis, 5-6 μ. diam.

Hab. in cortice ramorum adhuc vivorum Coffeæ arabicæ, cui innocua videtur, in insula Java.

3. **Peniophora disciformis** (DC.) Cooke — Syll. VI pag. 642 — var. 632
borealis Peck, Harrim Alaska Exped. Crypt. pag. 43. — A typo differt colore rubescente; cystidiis dimidio minoribus, disco pruinosulo v. pulvereo; sporis . . . .

Hab. ad terram. Yakutat Bay, Alaska (Trelease). — Ubi specimina fertilia, forte species nova demonstrabitur.

4. **Peniophora crassa** Burt, Ann. Rep. N. Y. State Mus n. 54, 1901, 633
p. 155 (Diagnosis l. c. desideratur).

KNEIFFIA Fr. Epicr. p. 529 (1838), *Peniophora* Cooke in Grev. VIII, p. 20 (1879) — Syll. VI p. 510, IX p. 216, XI pag. 114, XIV p. 11 et 210. Cfr. *Peniophora*, supra. — Genus *Kneiffia* Fr. ad typum *Kneiffiæ setigeræ* constitutum, a genere *Peniophora* Cooke non distinguendum. Nota aliqua exhibita erronea, prout basidia monospora, nam in genuina quoque *Kn. setigera* basidia sunt tetraspora. De cetero est *Corticium* cystidiis præditum. — Sensu Auctorum hoc genus heterogeneum, nempe *Peniophoræ* sp. et *Odontiæ* sp. amplectens, contra sensum Auctoris (Fries) qui clare dicit: «hymenium granulis verrucisque destitutum, sed tantum setis rigidis strigoso-exasperatum (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 99).

1. **Kneiffia setigera** Fr. Epicr. pag. 529. — Syll. VI p. 510 et IX p. 218 — Bres. Hym. Hung. Kmetiani p. 40.

Hab. quoque ad truncos Alni, Betulæ, Populi tremulæ et Salicis Capreæ, in Polonia. — Forma consueta omnino *Corticiorum;* resupinata late effusa, ceraceo-membranacea, ambitu pruinato, primitus alba, dein alutaceo-crustulina; hymenium generatim leve, rarius tuberculosum, demum rimosum; cystidiis velutino-exasperatum; sporæ hyalinæ, cylindraceæ, subcompressæ, 10-15 × 4-4$^1/_2$; basidia clavata, tetraspora, 30-35 × 6-7; cystidia sparsa, rarissime subfasciculata, cylindracea v. subfusoidea, tenuiter tunicata, tuberculoso-furfuraceo-incrustata, interdum septata et ad septa sæpe nodosa, 120-180 × 8-12 vel ultra; hyphæ contextus 4-6 μ. latæ (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 99).

2. **Kneiffia tomentella** Bres. Fungi Polonici, in Ann. Mycol. 1903, 634
pag. 103. — Late et interrupte effusa, mollis, tomentosula, laxe contexta, ambitu arachnoideo, ex albida alutacea vel demum subochracea; hymenio e sublacunoso levi; sporis hyalinis vel substramineis, 1-guttulatis, obovatis, 3$^1/_2$-4$^1/_2$ × 2$^1/_2$-3; basidiis clavatis, 20-25 × 4-5; cystidiis subfusoideis, apice obtuso, tenuiter tunicatis, apice laxe granuloso-incrustatis, mox glabris, interdum septato-nodosis, 70-90 × 4-5, parte prominula 30-40 μ.; hyphis contextus, 2-3 μ. cr.

Hab. ad folia coacervata et ligna mucida, in Polonia.

3. **Kneiffia subabscondita** Bres. Fungi Polonici in Ann. Mycol. 1903, 635
p. 101, *Corticium confluens* Fr. var. *subcalceum* Karst. in Revue Myc Avril 1888 — Syll. VI p. 627 et IX p. 232 — *Corticium leve* Pers. var. *subcalceum* Karst. Krit. Ofv. 1892, pag. 51 ? — Late effusa, adglutinata, submembranacea, ambitu radiato v. pruinato, pallida, subalutacea; hymenio sublevi vel colliculoso-subtuberculoso; sporis hyalinis, oblongis, $3\,^1/_2$-$4\,^1/_2$ × 2-$2\,^1/_4$; basidiis clavatis, 20-25 × 4-5; cystidiis raris, cylindraceis, apice obtuso, subattenuato, basi pedicellatis, crassiuscule tunicatis, granuloso-incrustatis, ut plurimum immersis, rarius usque ad 20 µ. emergentibus, 60-75 × 10-15; hyphis $2\,^1/_2$-4 µ. crassis.

Hab. ad truncos Betulæ, Alni et Pini silv., in Polonia. — Habitu et colore *Corticio confluenti* Fr. simillima, a quo notis micrologicis tantum tute distinguitur. Cl. Karsten locis citatis fungum describit, qui, fide speciminum mecum benevole communicatorum, cum nostro optime convenit; cystidia quoque adsunt etiamsi in diagnosi Karsteniana haud sint memorata; at sporas frustra quæsivi, quas cum Karsten globosas, 9 µ. diam. dicat, quod a fungo nostro est alienum, ejus cum specie Karstenii identitatem absolutam asserere nequeo et ideo ceu novum propono (Bres. l. c.).

4. **Kneiffia polonensis** Bres. Fungi Polonici in Ann. Mycol. 1903, 63
p. 102. — Late effusa, tomentosa, ambitu similari, nivea, demum cremea; hymenio scruposo, velutino; sporis hyalinis, oblongis, 6-9 × 4-5; basidiis clavatis, tetrasporis, 30-35 × 6-7; cystidiis subcylindraceis, tenuiter tunicatis, parte prominula granuloso-incrustata, septata, ad septa interdum nodosa, 200-230 × 8-9, circiter 80-90 µ. emergentibus; hyphis basidiophoris 5-6 µ. cystidiophoris 6-8 µ. latis, septato-nodosis.

Hab. ad truncos Quercus et Ulmi, in Polonia.

5. **Kneiffia Frangulæ** Bres. Fungi Polonici in Ann. Mycol. 1903, 637
p. 100. — Late effusa, membranaceo-mollis, crassa, subtus fibrillosa, ambitu fimbriato, ex albida cremeo-subalutacea; hymenio levi, interdum subundulato, haud rimoso; sporis hyalinis, oblongis, hilariter depressis, 7-9 × 4-5; basidiis clavatis, 25-30 × 5-6; cystidiis fusoideis, glabris, 30-45 × 6-8 parum prominulis, raro usque ad 15 µ.; hyphis subhymenialibus tenuibus, irregularibus, 3-4 µ.; hyphis basalibus rigidiusculis, regularibus, horizontalibus, septato-nodosis, 3-4 µ. cr.

Hab. ad ramos Frangulæ Alni, in Polonia. — Habitu videtur prorsus *Corticium leve* Pers. f. *pallida* (= *Thel. laxa* Pers.).

6. **Kneiffia farinosa** Bres. Fungi Polonici in Ann. Myc. 1903, p. 105. 638
— Late effusa e farinosa submembranacea, membranula tenui, laxe contexta et demum separabili, ambitu pruinato, ex alba cremea; hymenio sublevi, furfurello; sporis hyalinis, subglobosis vel subellipticis, 7-11 × 5-7½; basidiis clavatis, 30-35 × 7-8; cystidiis subcylindraceis, apice obtuso, subattenuato, crasse tunicatis, granuloso-incrustatis, glabrescentibus, 75-90 × 7-12; hyphis contextus, 2½-4½ μ. crassis.

Hab. ad ramos Salicis, Ulmi etc., in Polonia.

7. **Kneiffia clavigera** Bres. Fungi Polonici in Ann. Myc. 1903, p. 103. 639
— Late effusa, submembranacea, ambitu pruinato, ex albida cremeo-subalutacea; hymenio in vegeto subtuberculoso, in sicco levi; sporis hyalinis, oblongis, 9-10 × 5-6; basidiis clavatis, 35-40 × 6-7; cystidiis clavatis vel clavato-subcapitatis, tenuiter tunicatis, glabris, 60-75 × 14-17; parte prominula, 20-24 μ.; hyphis contextus 4-6 μ. cr.

Hab. ad lignum Populi moniliferæ, in Polonia.

8. **Kneiffia avellanea** Bres. Fungi Polonici in Ann. Myc. 1903, p. 102. 640
— Late effusa, tenuis, ceraceo-rigescens, adglutinata, ex avellanea fuscidula, ambitu pruinato, albo; hymenio e cystidiis sub lente velutino, haud rimoso; sporis hyalinis, cylindraceo-curvulis, 7-8 × 2-2½; basidiis clavatis, 18-20 × 4-5; cystidiis fusoideo-cuspidatis crasse tunicatis, furfuraceo-incrustatis, glabrescentibus, 75-100 × 9-12; hyphis conglutinatis, 3-4 μ. crassis.

Hab. ad ramos Ulmi campestris, in Polonia. — *Peniophoræ cinereæ* Fr. proxima, sed præcipue colore et cystidiis multo majoribus distincta.

9. **Kneiffia carneola** Bres. Fungi Polonici, in Ann. Mycol. 1903, 641
p. 104. — Late et interrupte effusa, flocculosa, ambitu furfuraceo, pallide et luride incarnata; hymenio velutino, haud rimoso; sporis hyalinis, subamygdaliformibus, apiculatis et hilariter depressis, 6-8 × 4-4½, raro 9-10 × 5; basidiis clavatis, 20-25 × 5-6, 4-sterigmaticis, sterigmatibus 4-6 μ. longis; cystidiis raris, conico-cuspidatis, basi ventricosis, e ruguloso-subincrustatis mox levibus, 90-100 × 8-9; hyphis irregularibus, mollibus, septatis, raro nodosis 3-5 μ. cr.

Hab. ad ramos Pini silvestris, in Polonia. — Specimen parum diversum habuit cl. Bres. quoque a Suecia a cl. Romell.

10. **Kneiffia velutina** (De C.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 100, *Thelephora* De C. Fl. Fr. VI, p. 33, *Xerocarpus*

alneus Karsten Hattsv. II, p. 137 pr. p.. *Peniophora velutina* (DC.) Cooke et *Peniophora Karstenii* Massee Monogr. of Thel. p. 153. — Syll. VI, p. 644 et IX, p. 238.

Hab. quoque ad truncos Quercus, Tiliæ, Coryli, Populi et Pini in Polonia. — In vegeto color hujus speciei sæpe pallidus vel cremeo-gilvidus, sed in sicco semper carneus fit. *Peniophora Karstenii* est forma pallidior ambitu subsimilari vel minus strigoso. Specimina a Karsten mecum benevole communicata ex parte huc et ex parte ad *Stereum alneum* Fr. genuinum spectant (Bresadola, l. c.).

11. **Kneiffia tenuis** (Pat.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 105, *Corticium tenue* Patouillard in Revue Myc. 1885, p. 182. — Syll. VI, p. 632.

Hab. ad ramos Coryli, in Polonia. — Sporæ cylindraceæ, 8-9 × 4-4 1/2; basidia clavata, 30-35 × 6-7; cystidia cylindracea, tenuiter tunicata, apice tuberculoso-incrustata more cystidiorum *Inocybarum*, 70-75 × 9-12; hyphæ 3-5 μ. crassæ. *Kneiffiæ setigeræ* forte nimis affinis.

12. **Kneiffia subsulphurea** (Karsten) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 104, *Corticium subsulphureum* Karsten Symb. VIII, p. 12. — Syll. VI, p. 632.

Hab. quoque ad ligna Pini silvestris, in Polonia. — Sporæ hyalinæ vel straminеæ, cylindraceo-subcurvulæ, 7-9 × 2-3; basidia clavata, 20-25 × 5-6; cystidia rara, subfusoideo-cuspidata, sæpe sinuosa, tenuiter tunicata, laxe superne granuloso-scabra, valde prominula, 6-8 μ. crassa; hyphæ subhymeniales 3-4 μ.; basales usque 6 μ. latæ. Cum speciminibns authenticis a cl. Karsten habitis comparavi. (Bres. l. c.).

13. **Kneiffia subalutacea** (Karsten) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 104, *Corticium subalutaceum* Karsten Symb. Myc. Fenn. X, p. 65. — Syll. VI, p. 636.

Hab. ad ligna Pini silvestris, in Polonia. — Sporæ hyalinæ, cylindraceo-curvulæ, 6-8 × 1 1/2; basidia clavata, 20-24 × 4; cystidia cylindracea, apice obtuso, levia, tenuiter tunicata, 70-100 × 5-6; hyphæ 2-3 μ. *Kneiffiæ glebulosæ* Bres. proxima. Cum speciminibus authenticis *Corticii subalutacei* K. comparavi. Etiam e Suecia habui a cl. L. Romell (n. 845).

14. **Kneiffia serialis** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 101, *Corticium* Fr. Dpicr. p. 563. — Syll. VI, p. 624, *Xerocarpus cacao* Karst. Hedw. 1890, p. 271.

Hab. ad ligna et truncos Pini silvestris, in Polonia. — Sporæ hyalinæ, cylindraceo-subcurvulæ, 5-6 × 2-2½; basidia clavata, 15-16 × 4-5; cystidia fusoideo-cuspidata, apice primitus granuloso-incrustata, dein glabra, interrupte distributa, 56-64 × 4-5; hyphæ contextus conglutinatæ, parum evidentes, 3-4½ μ. crassæ. Variat pallida, subtestacea, carneo-fuscidula, sublivida etc. Habitu videtur forma tenuis *Corticii lividi* Fr. (Bres. l. c.

15. **Kneiffia Roumeguerii** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 102 et in Fungi Trid. II, p. 36, tab. 144, f. 1 sub *Corticio*. — Syll. XI, p. 125.

Hab. quoque ad truncos Quercus, in Polonia et pr. Romam — Specimina hujus speciei habui ex America boreali a cl. Prof. Burt sub nomine *Peniophora Ravenelii* Cooke cum nota «distributed in Ravenel Fung. Car. 2, n. 39 under name of *Corticium leve*». Diagnosis tamen Cookei in Grev. VIII, pag. 21 cum meo fungo minus concordat et insuper Cooke scripsit quod sua species = *Corticio Auberiano* Rav. n. 1369 (non Mont.) est. An *Corticium læve* Rav. est = *Corticium Auberianum* Rav.? (Bres. l. c.).

16. **Kneiffia sanguinea** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 101, *Corticium* Fr. Epicr. p. 561. — Syll. VI, p. 612, *Corticium glabrum* Berk. et C. North Am. Fung. n. 255, non Ellis.

Hab. ad ramos Quercus silvestris, in Polonia. — Sporæ hyalinæ, obovatæ, 5-6 × 3; basidia clavata, 35-40 × 6-7; cystidia fusoidea, cuspidata, glabra, 55-60 × 6-7, non ubique distributa; hyphæ septatæ, vix nodosæ, subhymeniales 4 μ., basales usque ad 8 μ. crassæ, succo granuloso fulvo farctæ. Color hujus speciei in sicco lateritio-miniatus, sed in vegeto pallidus, hymenii pallido-cremeus; tactu ut in sicco coloratur. Specimina originalia Friesiana vidi, cum quibus specimina americana *Corticii glabri* B. & C., a cl. Prof. Burt missa, exacte conveniunt. *Corticium glabrum* Ellis North Am. Fung. n. 716 est = *Peniophora carnea* (B. et C.) Cooke (Bres. l. c.).

17. **Kneiffia purpurea** (Cooke et Morg.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 100, *Thelephora purpurea* Cooke et Morg. Myc. Fl. Miami Valley p. 198, *Hymenochæte* Cooke — Syll. VI, p. 597.

Hab. ad truncos, in Polonia. — Sporæ hyalinæ, subcylindraceæ, 6-7 × 3; basidia clavata 6-7 μ. lata; cystidia cylindraceo-subfusoidea, hyalina, demum basi straminea, crassiuscule tunicata, apice obtusa, primitus tunicata, dein granuloso-asperula, 100-120 ×

8–10; hyphæ contextus 3-4 μ. latæ. Cum speciminibus authonticis in Morgan n. 683 comparavi (Bres. l. c.).

18. **Kneiffia plumbea** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 103, *Corticium* Fr. Hym. Eur. p. 663. — Syll. VI, p. 624.

Hab. quoque ad ligna, in Polonia. — Late effusa, primitus purpureo-violacea, dein aetate plumbea, rimosissima; sporæ hyalinæ, cylindraceo-curvulæ, 9-11 × 3-4; basidia clavata, 30-32 × 6-7; cystidia parum prominula, tunicata, fusoidea, 36-40 × 7-10; hyphæ irregulares, conglutinatæ, parcæ, 3-4 μ. crassæ. *Peniophoræ cinereæ* Fr. admodum affinis et forte tantum ejus varietas. Cum speciminibus originalibus friesianis comparavi. Specimina a Karsten habita jam primitus plumbea et minus compacta, forsan quia sterilia, de cetero vix diversa (Bres. l. c.).

19. **Kneiffia longispora** (Pat.) Bres Fungi Polonici in Ann. Mycol. 1963, p. 1051, *Hypochnus* Patouill. Journ. Bot. 1894, n. 221. — Syll. XI, p. 130.

Hab. quoque ad truncos Betulæ, Alni, Carpini, Populi et Æsculi, in Polonia. — Sporæ hyalinæ, sinuato-vermiculares, 12-15 × 2 ½; basidia clavata, tetraspora, longe sterigmatica, 30-32 × 5-6; cystidia subuliformia, tenuiter tunicata, laxe granuloso-incrustata, 70-90 × 3-4 ½; hyphæ septato-nodosæ 2 ½-4 μ. Species hæc, primo in Tunisia detecta, in Polonia rossica admodum communis videtur; etiam in Austria lecta fuit a cl. prof. equite de Höhnel. Specimina nostra cum speciminibus originalibus a cl. Patouillard benevole missis comparavi. (Bres. l. c.).

20. **Kneiffia levis** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 99, *Corticium leve* Fr. — Syll. VI. p. 611 — non Pers.

Hab. quoque ad corticem Carpini, Coryli, Alni, Populi et Betulæ, in Polonia. — A *Corticio levi* Pers. differt notis microscopicis, quæ secuntur: sporæ obovatæ, biguttulatæ, hyalinæ, 5-6 × 2 ½-3; basidia clavata, 35–40 × 6-7; cystidia subcylindracea vel subfusiformia, tenuiter tunicata e granulato-incrustata sublevia, 50–80 × 6-7; hyphæ basidiophoræ tenues, 3-4; hyphæ cystidiophoræ crassiuscule tunicatæ, basi usque ad 7 μ. crassæ. Teste Burt in litt., qui specimina Friesiana in Herbario Kewensi vidit, species hæc genuinum *Corticium leve* Fr. sistit. (Bres. l. c.).

21. **Kneiffia levigata** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 104, *Corticium* Fr. Epicr. p. 565. — Syll. VI, p. 628 — *Xerocarpus Juniperi* Karst. Hattsv. II, p. 138 (forma biennalis).

Hab. quoque ad ramos Juniperi, in Polonia. — Sporæ hya-

linæ, cylindraceæ, 7-10 × 3-4; basidia clavata, 25-30 × 5-6; cystidia fusoidea, furfuraceo-tunicata, 40-60 × 7-9; hyphæ conglutinatæ 3-4 μ. E lurido cinnamomea canescens. Species hæc a *Stereo areolato* Fr. forma resupinata, meo sensu, non distinguenda. (Bres. l. c.).

22. **Kneiffia incarnata** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 103, *Corticium* Fr. Epicr. p. 564. — Syll. VI, p. 625.

Hab. quoque ad ramos Pini silvestris, in Polonia. — Sporæ hyalinæ, subcylindraceæ, uno latere depressæ, 8-10 × 4-4 ½; basidia clavata, 35-50 × 6-7; cystidia fusoidea, incrustata, crasse tunicata, 60-75 × 10-18. (Bres. l. c.).

23. **Kneiffia gigantea** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 99, *Corticium* Fr. Epicr. p. 559. — Syll. VI, p 610.

Hab. ad ligna Pini silvestris, in Polonia. — Sporæ hyalinæ, elongato-subcylindraceæ, 6-8 × 3-3 ½; basidia clavata, 30-35 × 5-6; cystidia fusoidea, crasse tunicata, furfuraceo-incrustata, 54-10 × 8-15; hyphæ contextus crasse tunicatæ, 4-7 μ.

24. **Kneiffia cremea** Bres. Fungi Polonici in Ann. Myc. 1903, p. 100 et in Fungi Trid. II, p. 63, tab. 173, f. 2 sub *Corticio*. *Peniophora cremea* (Bres.) Sacc. et Syd. — Syll. XVI, p. 195.

Hab. ad truncos et ramos Quercus, Carpini, Alni, Castaneæ et Pini. — Species valde communis in Polonia rossica; variat cremea, ochracea et luride straminea. Cystidia in junioribus sæpe apice granuloso-asperula, sed mox glabra.

25. **Kneiffia cinerea** (Fr.) Bres. Fungi Polonici in Ann. Myc. 1903, p. 103, *Corticium* Fr. Epicr. p. 563.

Hab. ad ramos Salicis cinereæ, in Polonia. — Sporæ hyalinæ, cylindraceo-curvulæ, 8-11 × 2 ½-3; basidia clavata 30-35 × 6-7; cystidia fusoidea, tunicata, 36-50 × 7-12; hyphæ contextus 3-4 μ., parcæ.

26. **Kneiffia aurantiaca** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 103 et in Fungi Trid. II, p. 37, tab. 144, f. 2 sub *Corticio*. — Syll. XI, p. 126.

Hab. ad ramos Alni glutinosæ, in Polonia. — In hoc specimine sporæ 15-18 × 10-12; basidia 80-90 × 12-14; cystidia ut in typo; hyphæ 3-4 μ. crassæ.

CONIOPHORA D. C. — Syll. VI p. 646, IX p. 241, XI pag. 129, XIV p. 224, XVI p. 195.

1. **Coniophora arida** Fr. Hym. Europ. p. 659. — Syll. VI, p. 648, 642
Thelephora Fr. Elenc. p. 197.

Hab. quoque ad truncos Pini silvestris, in Polonia. — Sporæ luteæ, obverse ovatæ, 10–14 × 7–9; basidia clavata, 35–40 × 8-10; hyphæ subbasidiales hyalinæ, contextus stramineæ vel ex ætate plus minusve coloratæ, septatæ, ad septa interdum inflatæ vel nodosæ, 3–6 μ. crassæ. — Var. **lurida** Karsten Symb. VIII, p. 12 (ut species). Cum typo, a quo colore, de cetero variabili, tantum diversa. — Var. **flavo-brunnea** Bres. Fungi Polonici, in Ann. Mycol. 1903, p. 110: late effusa, primitus flocculosa, flava, ambitu albo fimbriato, dein subpapyracea, secedens, brunneo-livida, sublevis; sporæ luteæ, 9–13 × 6 $^1/_2$ × 8; hyphæ 3–8 μ. crassæ. Ad ligna Pini silv., in Polonia.

CONIOPHORELLA Karst. Finl. Basidsv. p. 438. — Syll. XIV, p. 12. — Ab affini *Coniophora* (unde nomen *Coniophorella*) differt cystidiis clavato-fusoideis eminentibus.

1. **Coniophorella byssoidea** (Pers.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 111, *Coniophora byssoidea* (Pers.) Fr. — Syll. VI, p. 652, *Thelephora* Pers. Syn. p. 577, *Diplonema sordescens* Karst. Finl. Basidsv. p. 430, *Tomentella obducens* Karst. l. c. pag. 421, *Peniophora unicolor* Peck 43 Rep. p. 23, Cfr. Syll. IX, p. 239 et 240.

Hab. quoque ad corticem et ramenta Pini silv. et ad thallum Peltigeræ cujusdam, in Polonia. — Sporæ primitus hyalinæ, guttula straminea, dein stramineæ, oblongæ, 5-6 × 3-3 $^1/_2$, raro 4 μ.; basidia clavata, 20-25 × 5-6; cystidia fusoidea, levia, sæpe 1–pluri–septata, ad septa interdum nodosa, 70-90 × 4 $^1/_2$-6; hyphæ cystidiophoræ flavidæ, regulares, septato-nodosæ, 2 $^1/_2$-4 $^1/_2$ μ.; hyphæ basidiophoræ tenues, hyalinæ, subirregulares, 4-6 μ. crassæ.

2. **Coniophorella olivacea** (Fr.) Karst. Finl. Basidsv. p. 438. — Syll. VI, p. 649, *Hypochnus* Fr. Obs. 2, p. 282 pro parte, *Coniophora Ellisii* (B. et C.) Cooke. — Syll. VI, p. 648.

Hab. quoque ad ligni Pini silvestris, in Polonia. — Sporæ luteo-fuscæ, obverse ovatæ, sæpe uno latere compressæ, 10-14 × 5-6; basidia clavata, 30-35 × 8-9 cystidia clavata vel fusoidea, e granuloso-scabra leviuscula, septata, flavida, 100-150 × 9-12; hyphæ contextus septatæ, raro nodosæ, fuscidulæ, –8 μ. crassæ. In Herbario Friesii sub nomine *Hypochnus olivaceus* Fr. duæ inveniuntur species, sc. species hic exhibita et *Hypochni* sp. sporis globosis, echinulatis etc. qui sub nomine *Hypochnus olivaceus* remanere potest. Specimina Karstenii mecum benevole communicata

cum nostris concordant. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 111).

3. **Coniophorella umbrina** (Alb. et Schw.) Bres. Fungi Polonici in Ann. Mycol. 1903, pag. 111, *Coniophora umbrina* (A. S.) Fr. — Syll. VI, p. 652 — *Thelephora* Alb. et Schw. p. 281 β.

Hab. ad truncos Pini silvestris, in Polonia. — Sporæ fuscidulæ, obverse obovatæ vel subamygdaliformes, 9-12 × 6-8; basidia clavata, 30-9-10 μ.; cystidia subfusoidea, e granuloso-scabris levia, septata, 100-120 × 9-12; hyphæ fuscæ, 3-7 μ. crassæ. A *Coniophorella olivacea* Fr. fere tantum colore diversa, quæ in speciminibus visis semper constans.

HYPOCHNUS Fr. — Syll. VI p. 653, IX p. 242, XI p. 130, XIV p. 225, XVI p. 196, 1117.

1. **Hypochnus puniceus** (Alb. et Schw.) Fr. — Syll. VI, p. 661. — 643
var. **bolaris** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107. — Late effusus, tomentosus, lateritius, ambitu vix diversus; hymenio demum granuloso; sporis sub micr. subluteis, angulato-subglobosis, aculeolatis, 9-10 × 7-8; basidiis clavatis, 25-30 × 7; hyphis granulis fulvis repletis, 4-6 μ. crassis.

Hab. quoque ad acus Coniferarum, in Polonia. — A typo, cui colore et forma simillimus, differt sporis sinuato-angulatis, minus globosis minusque valide aculeatis.

2. **Hypochnus Gardeniæ** Zimm. in Centr. f. Bakter. Paras. 1901, 644
n. 3, p. 102, fig. 2. — Applanatus, albus, tæniæformis, 1 mm. lat., e ramis ad petiolos et fol. pag. inf foliorum extensus ibique tenuissimus, ex hyphis usque 13 μ. cr., intermixtis angustioribus, formatus, denique carneus et fertilis; basidiis fasciculatim stipatis cylindraceo-clavatis 15-20 μ. longis, sterigmatibus quaternis 4-5 μ. long.; sporis ovoideis, hyalinis, 5-6 × 4-5.

Hab. in ramis petiolisque Gardeniæ floridæ cultæ, cui valde noxius, in horto bot. Buitenzorg Javæ.

3. **Hypochnus fusco-ferruginosus** Bres. Fungi Polonici in Ann. My- 645
col. 1903, p. 109. — Latissime effusus, tomentosus, fuscus, ambitu mox similari; hymenio sublevi, luride ferrugineo-fulvello; sporis subellipsoideo-angulatis, aculeatis, fusco-fulvis, cum aculeis 12-15 × 10-12; basidiis clavatis, 40-45 × 9-10; hyphis subhymenialibus hyalino-fumosis, contextus fuscis, septato-nodosis, ad nodos subinflatis, 4-6 μ. crassis.

Hab. ad ramos Frangulæ Alni, in Polonia. — Exacte

medius inter *Hypochnum ferrugineum* Pers. et *Hypoch. rubiginosum* Bres.

4. **Hypochnus albo-stramineus** Bres. Fungi Polonici in Ann. Mycol. 646
1903, pag. 109. — Longe lateque effusus, furfuraceo-flocculosus, straminellus, ambitu pruinato; hymenio minute scrobiculato, concolori; sporis hyalinis, ovato-subglobosis, breviter aculeolatis, 8-9 × 7-8; basidiis cylindraceo-subclavatis, 50-60 × 6-7; hyphis hyalinis, septato-nodosis, subhymenialibus 4-4½ μ, basalibus usque ad 6 μ. crassis.

Hab. ad ramos Populi tremulæ, in Polonia. — Ab *H. cremicolore* cui valde accedit, sporis majoribus longiusque aculeatis et contextu laxiori præcipue differt.

5. **Hypochnus cremicolor** Bres. Fungi Polonici in Ann. Mycol. 1903, 647
p. 109. — Longe lateque effusus, tomentosus, ex albo cremicolor, ambitu furfuraceo; hymenio sublevi, concolori, demum late rimoso; sporis hyalino-substramineis, ovato-subglobosis, ambitu regulari, episporio punctato-scabro vel granuloso, 5-6 × 4½-5; basidiis clavatis, 30-35 × 6-7; hyphis contextus hyalinis, 3-8 μ. cr.

Hab. ad corticem truncorum Alni glutinosæ, in Polonia.

6. **Hypochnus cæruleus** Bres. Fungi in Ann. Mycol. 1903, p. 109. 648
— Late effusus, tomentosus, ambitu furfuraceus, atrocæruleus, tinctura sæpe subæruginea; hymenio floccoso-subscrobiculato; sporis subglobosis, subsinuatis, aculeolatis, fuscidulis, 6-9 × 6-7; basidiis clavatis, 30 × 9; hyphis hyalino-fumosis, septato-nodosis, ad nodos sæpe subinflatis, 3-6 μ. crassis.

Hab. ad terram et ad frustula lignea adhærentia, in Polonia. — Habitu et colore *Corticium cæruleum* Fr. simulat, sed structura optime distinctus.

7. **Hypochnus chlorinus** Massee in Kew Bull. 1901, p. 158. — Su- 649
biculo latissime effuso, membranaceo, subsecedenti, subtus et ambitu fibrilloso; hymenio chlorino, densissime granuloso; basidiis clavatis, apice truncatis 11-13 × 5, 4-sterigmaticis; sporis globosis hyalinis 4 μ. diam.

Hab. in truncis in Tasmania (Rodway). — Zonæ effusæ luteo-griseæ granuloso-pulverulentæ, lecideiformes.

8. **Hypochnus Bresadolæ** Brinkmann in Bres. Fungi Polonici in 650
Ann. Mycol. 1903, p. 108. — Late effusus, tomentosus, cacainus, ambitu subradiato, albido, mox concolore; hymenio pruinato-furfuraceo; sporis globosis, luteo-fuscis, vix una alterave uno latere depressis, eximie aculeatis, cum aculeis 12-16 × 11-16; basidiis cla-

vatis, 35-40 × 10-12; hyphis fuligineis, septato-nodosis, ad nodos inflatis, regularibus, 5-8 ad nodos 12 μ. crassis.

Hab. ad corticem Quercus et Pruni Cerasi in Westfalia (Brinkmann). — Variat in forma polonica sporis 12-14 μ. diam. et hyphis 4-7 μ.

9. **Hypochnus alutaceo-umbrinus** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 109. — Longe lateque effusus, tomentosus, umbrinus, margine pallide fimbriato dein similari; hymenio sublevi, pallide alutaceo vel subisabellino; sporis luteis, echinulatis, subglobosis, vix sinuatis vel angulatis, 8-9 μ. diam. vel 9 × 8; basidiis clavatis, 40-45 × 9-10; hyphis subhymenialibus hyalinis, subregularibus contextus stramineo-fuscis, septato-nodosis, 3-5 μ. cr. 651

Hab. ad Carpinum Betulum, in Polonia.

10. **Hypochnus epimyces** (Bres.) Sacc. et D. Sacc. *Corticium (Hypochnus) epimyces* Bres. Verh. Z. B. G. Wien 1901, p. 641. — Effusus tenuis, tomentosulus, fuligineo griseus; hymenio unito, pallidiore; sporis globosis v. rarius subglobosis, fumoso-hyalinis muriculatis, 8-10 μ. diam. v. 9-10 × 8-9; basidiis clavatis, 45-50 × 7-8; hyphis basidiophoris hyalinis, contextus stramineo-hyalinis, regularibus, 2,5-3,5 μ. cr. 652

Hab. supra Trametem odoratam in Sonntagberg Austriæ (Strasser).

11. **Hypochnus fulvescens** Sacc. in D. Sacc. Myc. ital. n. 1206 et in Ann. Mycol. 1904, p. 2, tab. III, fig. 1. — Effusus, ramulos ambiens, tenuissimus, sub vitro velutinus, ambitu conformi vix distincto, superficie setulis acicularibus, obtusulis, croceis, 80-90 × 4-6 conspersus; hyphis subhymenialibus filiformibus, varie ramosis, laxe intricatis, septulatis, aureo-fulvis; basidiis ex hypharum ramulis ultimis orientibus, tereti-clavatis, apice obtusis, 14-16 × 3-4, dilute fulvis; sterigmatibus subbinis brevissimis; sporis globulosis, non omnino regularibus, minutis, 3-4 μ diam., subhyalinis. 653

Hab. ad ramulos emortuos Callunæ vulgaris, Riva Valdobbia (Novara), autumno 1900 (Ab. Ant. Carestia). — Affinis *Hypochno setoso* Schröt.

12. **Hypochnus chætophorus** v. Höhnel, Fragmente zur Mykologie 1903, p. 21. — Late effusus, tenuis, arcte adnatus, indeterminatus, floccoso-grumosus, setulis dense approximatis hispidulo-velutinus, candidus vel pallidus, hymenio e basidiis tetrasporis, 4-5 μ. crassis et setulis albis, rigidis, acutis, levibus, acicularibus, crassissime 654

tunicatis, ad basin plerumque ramoso-dilatatis, 100-160 × 5-10 formato; sporis ellipsoideis, hyalinis, levibus 6 × 3.

Hab. in Laricis ligno putrido in silvis ad Krummbachleithen montis Schneeberg Austriæ inferioris.

13. **Hypochnus Weisseanus** P. Henn. Verh. Brandbg. XXXXIII, 655
1901, p. XII. — Pellicula tenui, albida, subcompactiuscula, folia tegente; hyphis intricato-ramulosis, hyalinis, septulatis 4-6 μ. crassis; basidiis interdum dense compressis, clavulatis, 15-22 × 4-6, hyalinis, apice sterigmata 2 vel 4 gerentibus; sporis subglobosis, hyalinis, levibus vel subechinulatis, 4-5 μ. crassis; conidiis episporio brunneo, verruculoso, 7-10 μ. diam.

Hab. in foliolis Leucobryi vulgaris, pr. Nahmitz Germaniæ (Doct. A. Weisse).

14. **Hypochnus arachnoideus** (Berk. et Br.) Bres. Fungi Polonici in 656
Ann. Mycol. 1903, pag. 108, *Thelephora* B. et Br. F. of Ceyl. n. 581. — Syll. VI, pag. 543, *Thelephora floridana* Ell. et Ev. Journ. Mycol. II, p. 37.

Hab. quoque ad ramos Tiliæ in Polonia. — Sporæ globosæ, subangulatæ, fuscæ, aculeatæ, 8-10 × 8-9, rarius 7-9 × 7; basidia clavata, 30-35 × 7-8; hyphæ contextus fuscæ, regulares, basales punctato-scabræ vel tunica granoso-aculeolata primitus indutæ, usque ad 9 μ. crassæ. — Var. **murinus** Bres. l. c.: late effusus, tomentosus, fuscus, ambitu primitus pallido-subfimbriato, dein concolori et similari; hymenio sublevi, fumoso vel murino-fumoso; sporis fuscis, subgloboso-angulatis, aculeatis, 8-9 μ. diam. vel 9-10 × 7-8 sine aculeis; basidiis clavatis, 30-35 × 9-10; hyphis subhymenialibus pallidis, 3-4 μ., contextus fuscis, regularibus, septato-nodosis, 5-6 μ. crassis. Ad ramos, in Polonia A typo differt hymenio discolore (an ex ætate?) et contextu fusco, nec umbrino-castaneo.

15. **Hypochnus cæsius** (Pers.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107, *Corticium* Pers. Obs. I, p. 15, tab. 3, f. 6, *Thelephora* Fr. Hym. Europ. p. 638. — Syll. VI, p. 540.

Hab. quoque ad terram et folia decidua, in Polonia. - E cæsio-cinereo canescens vel in perfecte evolutis ravidus, ambitu subfimbriato; sporæ globosæ vel globoso-subsinuosæ, fuscæ, aculeolatæ, 8-11 μ. diam. vel 9-11 × 7-9; basidia clavata, 30-35 × 8-10; hyphæ septato-nodosæ, ad septa sæpe inflatæ, 3-7 μ. crassæ.

16. **Hypochnus chalybæus** (Pers.) Sacc. — Syll. VI, p. 659, *Tomentella chalybea* Pers. Obs. II, p. 2.

Hab. quoque ad ramos Coryli Avellanæ, in Polonia. — Late effusus, tomentosus, brunneolus, margine fimbriato vel subsimilari; hymenium leve, plumbeum vel chalybeo-cinereum, ætate substrato concolor; sporæ subglobosæ, subdepressæ, aculeatæ, 10-14 × 9-10; basidia clavata, 40-45 × 10-12; hyphæ subhymeniales hyalinæ, 3-4 μ.; hyphæ contextus fuscæ, regulares, septato-nodosæ, 4-7 μ. Specimina authentica persooniana non vidi, nec in Museo lugdunensi exstant; diagnosis tamen l. c. bene convenit, exclusa tinctura olivacea, quæ in fungo nostro nunquam obvia. Sensu Auctorum nonnullorum genuina *Tomentella chalybea* Pers. esset = *Corticium atrovirens* Fr., de quo supra, quod tamen non chalybeum sed cæruleum, nec olivaceo-cinereum sed flavo-viride (Bresadola, Fungi Polonici in Ann. Mycol 1903, p. 106).

17. **Hypochnus cinerescens** Karsten Finl. Basidsv. p. 441. — Syll. IX, p. 244.

Hab. quoque ad truncos Quercus et Alni, in Polonia. — Sporæ globosæ, luteolæ, echinulatæ, 6-7 × 5-6-6 ½; basidia clavata, 20-25 × 5-6; hyphæ contextus hyalino-stramineæ, basales punctato-scabræ, regulares, septato-nodosæ, 3-4 ½ μ. Ab *Hypochno granoso* B. et C. colore modo diversus et probabiliter tantum ejus statum juvenilem sistit. Hymenium quoque granosum, prout in speciminibus authenticis a cl. Karsten habitis. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 108).

18. **Hypochnus eradians** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 106, *Thelephora* Fr. El. I, p. 195. *Coniophora eradians* Fr. — Syll. VI, p. 651.

Hab. quoque ad corticem Frangulæ Alni et Pini silv., in Polonia. — Hymenium rugoso-radiatum vel etiam leve, demum granulosum, ambitu pulchre albo-fibrilloso-radiato; sporæ fuscæ, subglobosæ, plus minusve angulato-sinuosæ, echinulato-granulosæ, 8-12 × 7-9, generatim 9-10 × 7; basidia clavata, 30-35 × 7-8; hyphæ fuscæ, septato-nodosæ, sat regulares, 4-7 μ. Species hæc forte nil aliud quam forma lignicola *Hypochni crustacei* (Schum.) Karst.

19. **Hypochnus furfuraceus** Bres. Fung. Trid. II, p. 97, tab. 208, 657
f. 2. — forma **cinerella** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 107. — Syll. XVI, p. 196.

Hab. ad ligna Pini silv. et Betulæ, in Polonia. — Quam typus tenuior, cinerellus; basidiis 12 × 9-10, 2-4-sporis, ut plurimum bisporis, sterigmatibus usque ad 7 μ. longis; sporis globosis 6-7 μ. diam. punctato-scabris. Probabiliter forma juvenilis.

20. **Hypochnus granosus** (Berk. et C.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 108, *Thelephora* Berk. et C. North Am. Fungi n. 224. — Syll. VI, p. 546.

Hab. quoque ad truncos Betulæ, in Polonia. — Sporæ fusco-luteæ, subglobosæ, subangulatæ, echinulatæ, 7-8 × 6-7; basidia clavata, 20-25 × 5-6; hyphæ subhymeniales, tenues, 4-5 μ.; hyphæ contextus regulares, tenaces, hyalino-fuscidulæ, septato-nodosæ, 3 μ., basales punctato-scabræ, 4-5 μ. crassæ.

21. **Hypochnus isabellinus** Fr. Obs. II, p. 281, tab. VI, f. 3. — Syll. VI, pag. 657. — *Hypochnus argillaceus* Karst. Symb. Myc. Ser. VIII, p. 13, *Tomentella flava* Bref. Unters. VIII, p. 11, fide speciminis a Brinkmann missis ad cl. Bres.

Hab. quoque ad corticem Pini silv., in Polonia. — Sporæ globosæ, flavæ, aculeatæ, 10-12 μ. diam. cum aculeis, absque aculeis 7-9 μ.; basidia clavata variæ longitudinis, 20-60 × 8-10, 2-4-sterigmatica; hyphæ irregulares, hyalino-stramineæ, septatæ, ad septa inflatæ, 8-15 μ. crassæ. Color in speciminibus junioribus luride argillaceus, in bene evolutis, trama magis compacta, læte isabellinus. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 106).

22. **Hypochnus pellicula** Fr. ut var. *Hypochni mollis* Fr. Syll. VI, p. 656 — *Corticium echinosporum* Ellis in E. et E. N. A. Fungi n. 608. — Syll. VI, p. 633.

Hab. quoque ad ramos Pini silvestris et vix diversus ad ramos Alni, in Polonia. — Sporæ stramineæ, globosæ, echinulatæ, 5 ½-7 × 5-6 vel 6-7 μ. diam.; basidia clavata, 20-25 × 5-6 vel in speciminibus crassioribus 30 × 4-8; hyphæ hyalinæ, septato-ramosæ, raro nodosæ, regulares, 3-4 ½ μ. crassæ. Specimina americana exacte concordant. *Hypochnus mollis* Fr. typicus sporis gaudet subellipticis, levibus; insuper receptaculum magis compactum etc. ita ut var. *pellicula* ceu specifice distincta habeatur. (Bresadola, Fungi Polonici in Ann. Mycol. 1903, p. 107).

23. **Hypochnus tristis** Karsten Finl. Basidsv. p. 440, *Hypochnopsis* 658
fuscata Karsten l. c. p. 443, *Hypochnus fuscatus* (Karst.) Sacc. Syll. IX, p. 244, *Hypochnus sitnensis* Bres. Hym. Kmet. p. 51.

Hab. quoque ad ramos Rhamni catharticæ, in Polonia. — Specimina originalia *Hypochnopsis fuscatæ* Karsten examinavi et cum speciminibus *Hypochni tristis* K., pariter originalibus, et *Hypochni sitnensis* Bres. comparavi et identica inveni. Sporæ *Hypochnopsis fuscatæ* quoque sunt globoso-subangulatæ, muricato-verrucosæ, 9-12 × 9-11, nec, ut habet Karsten, leves, 3-4 μ. diam.

(Bresadola Fungi Polonici in Ann. Mycol. 1903, p. 107. — Var. **ardosiacus** Bres. l. c.: differt hymenio fusco-palumbino. Ad truncos Betulæ in Polonia.

EXOBASIDIUM Wor. — Syll. VI p. 664, IX p. 244, XI pag. 130, XIV p. 229, XVI p. 198.

1. **Exobasidium Yoshinagai** P. Henn. Fungi japonici IV, in Botan. Jahrbücker vol. XXXI, 1902, p. 736. — Maculis rotundato-effusis, fuscis; hymenio hypophyllo, haud incrassato, cinereo-incarnescente, subceraceo, dein subpulverulento; basidiis clavatis; sporis subcylindraceis v. oblonge subfusoideis, utrinque obtusis, 5-6 × 2-2,5 hyalinis. 659

Hab. in foliis Rhododendri tosaënsis, Tosa Japoniæ.

2. **Exobasidium shiraianum** P. Henn. Engl. Jahrb. 1902, XXXII. p. 38. — Hymenio hypophyllo, effuso albido, pruinoso, haud bulboso; basidiis clavatis 4-sterigmatibus sporis fusoideis, rectis vel subcurvulis 7-11 × 2 1/2 hyalinis. 660

Hab. in pag. inf. foliorum juniorum Rhododendri Metternichii, Mont Shirane Japoniæ (S. Kusano).

3. **Exobasidium Pieridis** P. Henn. in Engl. Jahrb. 1902, p. 38. — Hymenio in foliis petiolisque nodulis galliformibus, subcarnosis, subglobosis vel laceratis, corneis, pruinosis, varia magnitudine; basidiis 4-sterigmaticis; sporis oblonge fusoideis, rectis, hyalinis 7-9 × 3. 661

Hab. in foliis vivis Pieridis ovalifoliæ, Mont Tukubo Japoniæ (S. Kusano).

ENDOBASIDIUM N. Speschnew Fungi transcaspici et turkestanici, 1901, pag. 12 (Etym. *endon* intus et *basidium*). — Hymenium fibrosum, endophytum, nunquam erumpens Hyphæ steriles crassæ, septatæ. Hymenium leve, interdum undulatum, tenuissime granulatum. Basidia apice truncato-rotundata, bi-sterigmatica; sporæ globosæ, hyalinæ, dein olivaceo-brunneæ. Conidia minuta, globosa, hyalina.

1. **Endobasidium clandestinum** N. Speschnew, l. c., tab. II, fig. 6-11. — Maculis in acinis submaturis solitariis v. confluentibus atro-violaceis determinatis, leviter concentrico-undulatis; mycelio crassiusculo, ex hyphis stipatis, 9-14 μ. cr., tortuosis sæpe moniliformibus, intus pluri-vacuolatis, formato; hyphis fertilibus, diaphanis 80-90 × 2-4, apice basidiosporis; sporis ovoideis, continuis, acrogenis binis v. rarius solitariis, 8-12 × 7-9, ex hyalino olivaceis; hy- 662

phis conidiophoris paullo crassioribus, apice conidia globosa copiosissima 2 μ. diam. gerentibus.

Hab. sub epidermide acinorum submaturorum Vitis viniferæ, quos exurit, Samarkand, Bukhara Asiæ.

CYPHELLA Fr. — Syll. VI p. 667, IX p. 245, XI p. 132, XIV p. 231, XVI p. 200.

1. **Cyphella flocculenta** (Fr.) Bres. Fungi Polonici in Ann. Mycol. 1903, p. 111, *Thelephora flocculenta* Fr. El. I, p. 184 (1828), *Corticium flocculentum* Epicr. p. 559. — Syll. VI, p. 605, *Cyphella ampla* Lév. Ann. sc. nat. 1848, p. 126. — Syll. VI, p. 667.

Hab. quoque ad ramos Populi Tremulæ, in Polonia. — Sporæ hyalinæ, cylindraceo-subcurvulæ, 9-11 × 2 ½; basidia clavata, apice 4-sterigmatica.

2. **Cyphella cochlearis** Bres. Fungi Lusit. in Broteria, 1903, vol. II, 363
pag. 88. — Cupulari-stipitata; cupula subhemisphærica, cernua, horizontaliter posita, angulum rectum fere cum stipite efformans, grisea, villosula 3-4 mm. lata; hymenio discoideo e levi radiatim ruguloso, griseo-fumoso; stipite farcto, tereti, pallido-griseo, puberulo, basi albo-tomentoso 3-5 mm. longo, 1 mm. circiter cr.; basidiis clavatis 25-30 × 7-8; sporis hyalinis, obovatis v. piriformibus, 6-9 × 4,5-6.

Hab ad terram inter muscos minores, in Lusitania. — Adest varietas subsessilis et auriformis, sed rarior.

3. **Cyphella pseudovillosa** P. Henn. in Bot. Jahrb. 1904, p. 43. — 664
Subglobosa, clausa, initio subcupulata, extus albida villosa 0,3-0,7 mm. diam., pilis simplicibus haud septatis, acutis, hyalinis, levibus, usque ad 250 × 4-6, disco pallido levi; basidiis ovoideis vel clavatis 13-17 × 7-8, 2-sterigmaticis; sporis ovoideis vel late ellipsoideis, hyalinis, levibus 4-5 × 4.

Hab. in ramis emortuis Schagajuwald, Ost Usambara, Afr. orient. (Engler).

4. **Cyphella muscigena** (Pers.) Fr. Epicr. p. 567. — Syll. VI, p. 681, *Thelephora* Pers. Syn. pag. 572, *Stereophyllum boreale* Karsten Symb. Myc. Fenn. XXIX, p. 104. — Syll. IX, p. 223.

Hab. ad Atrichum undulatum, in Polonia. — Sporæ hyalinæ, subglobosæ, guttula subolivacea, 3-4 × 3; basidia clavata, 14-15 × 3; hyphæ 2 μ. crassæ. Species quoad formam variabilissima Specimen *Stereophylli borealis* Karst. a me visum formam spa-

thulatam hujus speciei sistit (Bresadola, Fungi Polonici in Ann. Mycol. p. 111).

5. **Cyphella juruensis** P. Henn. F. Amaz. I, p. 173 (Hedw. 1904). 665
— Pileo coriaceo-membranaceo, unguiculato vel oblique campanulato, postice affixo, superne pallido-brunneolo vel flavido, levi, glabro ca. $1^1/_2$ mm. longo, 1 mm. lato, hymenio concavo pallido, sublevi; basidiis clavatis, hyalinis, 7-10 × $2^1/_2$-$3^1/_2$; sporis subglobosis vel ovoideis, hyalinis, levibus, $2^1/_2$-3 µ. diam.

Hab. ad ramos Juruá St. Clara Amazoniæ (Ule). — Pilei minuti, sparsi.

6. **Cyphella patens** Annie L. Smith Journ. Linn. Soc. XXXV, p. 10 666
(extr.). — Syll. XVI pag. 1117 (nomen). — Sparsa, tubæformis, elongata, fere ad basim fissa et expansa, margine superiore incurvata, circa 5 mm. longa, 2 mm. lata, extus flava tomentosa; hymenio brunneo, plicis paucis angustis lamelliformibus instructo; sporis globosis, minute asperulis 5 µ. diam., hyalinis

Hab. in corticibus arboris in ins. Dominica Indiæ occid.

7. **Cyphella marginata** Mc Alp. Fungus diseases, Melbourne 1902, 667
p. 120, fig. 229-232. — Subgregaria, ochracea, cyathiformis, erecta, fere pedicellata, membranaceo-gelatinosa, margine setulis curvulis luteolis villosa, 0,5-1 mm. diam.; hymenio concavo, cremeo-albo; sporis hyalinis, subglobosis vel subellipticis 8-9 µ. diam. vel 11-12 × 8; basidiis elongato-clavatis, hyalinis tetrasporis.

Hab. in ramis emortuis Pruni Persicæ, Armadale prope Melbourne Australiæ.

8. **Cyphella lilacina** Massee in Kew Bull. 1901, p. 164 — Pileo sub- 668
sessili, campanulato, erecto, tenui, membranaceo-tenacello, margine primo involuto, undulato, 0,5-1 mm. diam et alt., extus dense tomentoso-pubescenti, pilis continuis 50-60 × 5–6, succineis, hymenio levissimo lilacino-albescente; sporis ellipticis, lilacinis, 8 × 5-5,5.

Hab. in caule herbaceo emortuo, in horto botanico Aburi, Gold Coast Africæ occident. — Dense gregaria, valde pilosa, *C. albo-violascenti* W. affinis

9. **Cyphella tijucensis** P. Henn. in Hedw. 1904, p. 81. — Pileo ses- 669
sili, medio affixo, ceraceo, cupulato, 1-2 mm. diam., extus pallido, pruinoso, subfarinaceo; hymenio levi, pallido; basidiis clavatis 15-20 × 4; sporis subglobosis v. ovoideis, 1-guttulatis, hyalinis, 4 × 3,5.

Hab. in ramis Calami, Tijuca, Rio de Janeiro, Amer. merid.

10. **Cyphella Vitis** (Bon.) v. Höhn. in litt. Ita nuncupanda *Volutella Vitis* (Bon.) Sacc. III, p. 688.

TREMELLOPSIS Pat. in Duss Enum. champ. Guadel. 1903, pag. 13 (Etym. a *Tremella* et *opsis* aspectus). — Gelatinoso-tremellacea, erecta, foliaceo-lobata. Hymenium amphigenum, continuum. Basidia clavata, non septata, apice sterigmata subulata 2-4 ferentia. Cystidia nulla. Sporæ continuæ ochraceæ.

1. **Tremellopsis Antillarum** Pat. l. c. — Pileo massam gelatinosam, 670
e foliolis erectis, crispis, integris lobatisve, plus minus ramosis, radiantibus, sessilibus breviterve stipitatis formatam, efficiente, e griseolo rufo-ochraceo, parum crasso; basidiis 30-35 × 10; sporis ochraceis, ovoideis, levibus, 8-10 × 5-6.

Hab. ad ligna putrida, Matouba Guadalupæ (Duss). — Fungus 1-2 cm. alt., 2-3 cm. cr. Trama mollis, filamentis 10 μ. cr., tenui-tunicatis, laxiusculis.

BORNETINA Mang. et Vial. La phthiriose de la vigne, Paris 1903, pag 6 et seqq. — Mycelium radices late ambiens membranaceo-coriaceum, superficiale, ambitu varium. Hyphæ steriles filiformes, varie intricato-contextæ, ramosæ, continuæ; fertiles ascendentes, sursum ramuloso-sporigeræ, noduloso-septatæ. Sporæ globosæ, 1-cellulares, initio leves, dein distincte verrucosæ, vertice apiculatæ, basi pedicellatæ et cum pedicello secedentes. — Videtur ad *Thelephoraceas* magis accedere. — Illustri J. B. Bornet dicatum genus.

1. **Bornetina Corium** Mang. et Vial. l. c. t. I-IV. — Characteres 671
generis. Mycelio crasso ex albo sordide fusco; sporis initio hyalinis, dein fuscescentibus, 10-12 μ. diam.

Hab. in radicibus Vitis vinifera, *Dactylopio Vitis* invasis Jaffa et Caiffa in Palæstina — Radices *Dactylopio* et *Bornetina* obductæ, asphyxiâ laborant et tandem emoriuntur. Sporæ tunica duplici instructæ, initio endogenæ.

Fam. 5. Clavariaceæ Corda

CLAVARIA Vaill. — Syll. VI p. 692, IX p. 247, XI p. 134, XIV p. 236, XVI 203.

1. **Clavaria densissima** Peck Bull. Torr. Bot. Cl. 1903, pag. 98. — 672
Cæspitibus 7-10 cm. altis, totidem fere crass., densissimis, a basi conferte et intricato ramosis, ramis solidis, intus albis, sæpe compressis, repetito et irregulariter ramulosis, subinde anastomoticis,

siccis pallide ochraceis, ramulis ultimis plus minus compressis et dilatatis, in apices obtusos v. acutos binos v. plures albidos terminatis; sporis navicularibus, sæpe 1-nucleatis, 8-10 × 4-5; mycelio albido.

Hab. ad humum et detrita in silvis mixtis, Greenville Michigan Amer. bor. (B. O. Longyear). — Affinis *Cl. densæ* et *Cl. condensatæ*.

2. **Clavaria caloceriformis** Oud. Bot. Centr. Beil. 1902, p. 3, extr. — 673
Ramaria leucospora, læte colorata, luteo-aurantiaca, tandem subviscosa, tamen siccando minime cornea, sed in putredinem abiens et odorem fœtidissimum nauseosum spargens; trunco 3-5 cm alto, flexuosulo, basim versus multo pallidiore, 3-5 mm. cr., subobeso, quasi hydropico, superficie inæquali, sursum semel ramoso, ramis trunco bis ad ter brevioribus et paullo angustioribus, summo in mucrones breves, molles, acutiusculos divisis.

Hab. ad terram argillaceam, graminosam prope Bergen, Hollandiæ. — Quoad habitum et colorem maxime accedit ad fig. Schaeffer Fung. Icon. t. CLXXIV.

3. **Clavaria byssiseda** Pers. Obs. Myc. I, p. 32, Comment. pag. 54, t. 3, f. 7. — Syll. VI, p. 706.

Hab. ad ramos Quercus et Salicis fragilis, in Polonia. — Species hæc, meo sensu, vix ab auctoribus recentioribus recte est intellecta et diagnoses iconesque ultimis decenniis datæ vix dubie ad *Clavariam crispulam* Fr. ducendæ, qua de causa diagnosin novam hic exhibemus: Dense gregaria vel connato-cæspitosa, carnoso-subtenta; trunco brevi vel subnullo, puberulo, pallido, mox ramis concolore, 1-7 mm. longo, 1-3 mm. crasso, basi mycelio candido, tomentoso-lanoso, radiculis albis vel pallidis percurso, sæpe peronato; ramis brevibus, semel vel bis furcato-aut verticillato-divisis, apicibus acutis, longioribus, bi- vel trifidis vel etiam palmatis, glabris, avellaneis, demum luride isabellinis, in sicco sæpe minutissime rimosis ut furfuracei appareant; sporis hyalinis, elongato-sinuatis, veluti subsigmoideis, 13-18 × 4-6; basidiis clavatis, 25-30 × 8-10; hyphis contextus septatis, 4-6 μ. crassis. *Clavaria leucotephra* B. et C., *Clavaria fragrans* Ellis, *Clavaria pinophila* Peck et *Lachnocladium Micheneri* B. et C., quæ certe ad unicam speciem ducendæ sunt, videntur tantum formæ majores hujus speciei (Bresadola Fungi Polonici in Ann. Myc. 1903, p. 112).

4. **Clavaria cervicornis** Annie L. Smith Journ. Linn. Soc. XXXV, 674

pag. 10, tab. 1, fig. 6-8 (extr.). — Syll. XVI, p. 1116 (nomen). — Lignicola, 8 cm. alta, trunco simplici, subtereti, 2 cm. alto; ramis subdichotomis, supra spinosis, compressis, siccitate sulcatis; tota carnea, dein cinnamomea, velutino-pruinosa; sporis ellipticis, echinulatis, flavido-brunneis 6 × 8.

Hab. ad ligna putrida, ins. Dominica Indiæ occid.

5. **Clavaria crassipes** Peck in Rep. of the State Botanist 1902, p. 27. 675
— Stipite crasso, firmo, solido vel basi sublacunoso, glabro, albido, superne repetito ramoso; ramulis numerosis, firmis, in apices obtuse dentatos desinentibus, albidis vel luteolis; sporis oblongis, 1-nucleatis 15-17,5 × 5,5-7,5, basi oblique minute apiculatis.

Hab. in silvis, Sandlake, Amer. bor. — Planta 7,5-15 cm. alta, 5-10 cm. lata; stipes 2.5 cm. circ. alto; caro stipitis sub incisione brunnea.

6. **Clavaria grandis** Peck in Bull. Torr. Bot. Club. 1902, p. 73. — 676
Fragrans, 12-20 cm. alta et in summitate subæqualiter lata; stipite firmo, superne ramoso, ramis erectis vel subdivergentibus, superne attenuatis et repetito ramulosis, solido fragilique, glabro, rufo brunneo 2-2,5 cm. crasso; apicibus in statu juvenili albis, dein maturitate ferrugineo-brunneis; sporis ferrugineis subellipticis vel subglobosis, distincte verrucosis, 10-12 × 6-8.

Hab. inter cæspites Smilacis ad terram, Maryland, Amer. bor. (F. J. Braendle).

7. **Clavaria Holmskjoldi** Oud. Bot. Centr. Beil. 1902, p. 3, extr. — 677
Ramaria coralloides, alba, apicibus purpurascentibus Holmsk. Otia I p. 117 et icon. ultima n. 32 fig. dextra non sinistra. — Alba vel avellanea; ramis crassioribus semel v. bis partitis plerumque obesis v. quasi inflatis 2-4 mm. cr., plenis deorsum confluentibus; ramulis primi v. secundi ordinis varie intertextis; ramulis singulis in appendiculam bilobam v. bifurcatam curtam et obesam atro-purpuream abeuntibus; parte basilari totius plantæ sæpe longitudinaliter sulcata v. crustata; basidiis clavatis 10 μ. long.; sterigmatibus quaternis, sursum filiformibus; sporis globosis 4,2 μ. diam. hyalinis.

Hab. ad terram argillaceam prope Bergen op Zoom Hollandiæ (M. La Fontyn). — Odor mucido-aniseus.

8. **Clavaria bicolor** Massee in Kew Bull. 1901, p. 154. — Clavulis 678
robustis, brevibus, circ. 1 cm. crassis longisque; ramis ramulisque numerosis, cylindraceis, pallide umbrinis, apicibus cristato-multifidis, amethystinis; basidiis clavatis, tetrasporis; sporis hyalinis, subglobosis, asperatis, 9 × 7-8.

Hab. ad terram, Penang, Malacca (Ridley). — Totus fungus 7-8 cm. alt.; *Cl. amethystinæ* Bull. affinis.

9. **Clavaria tsugina** Peck Rep. of the State botanist 1902, p. 27. — 679
Stipite brevissimo, glabro, e basi ramoso, solido; ramis paucis v. compluribus, suberectis, sæpe stipatis, flexuosis, duriusculis, firmis, acutis, initio cremeo-luteis dein vinoso-cinnamomeis vel rubro-brunneis; sporis ochraceis, ellipsoideis 7,5 × 3.

Hab. in truncis emortuis Tsugæ canadensis, in montibus Adirondack, Amer. bor. — Planta 2,5-7,5 cm. alta, usque 7 cm. lata. *Cl. abietina* affinis.

10. **Clavaria ornithopoda** Massee in Kew Bull. 1901, p. 154. — Cla- 680
vulis tenuibus 1 cm. longis, ad apicem ramos 3-5 flabelliformes gerentibus, ramulis ultimis terminalibus aculeatis, nodulosis, arcuatis; ramis ramulisque pallide ferrugineis (in spiritu vini); basidiis anguste clavatis, tetrasporis; sporis ellipticis, hyalinis, glabris 6-7 × 4.

Hab. ad terram, Penang, Malacca (Ridley).

11. **Clavaria myceliosa** Peck Bull. Torr. Bot. Cl. 1904, p. 182. — 681
Stipite tenui, solido, sursum irregulariter ramoso, fulvo; mycelio copioso tænias ramosas albas inter folia et ramulos repentes formante; ramis brevibus divergentibus, late patenti-ramulosis, stipiti concoloribus, ultimis ramulis acutis albidis; sporis subglobosis, 4 μ. long.

Hab. sparse v. gregatim inter folia dejecta ramulosque sub arboribus (*redwood*), in montanis pr. Standford University, California Amer. bor. — Stipes vix 0,5 mm. cr., cum ramis 1-2,5 cm. alt. *Clavaria pusillæ* affinis sed adhuc minor, apice tantum ramosa etc.

12. **Clavaria Peckii** Sacc. et D. Sacc. *Clavaria bicolor* Peck in Rep. 682
of the State Botanist 1901, p. 954, nec Massee. — Gregaria, tenuis, 16-24 mm. alta; stipite exili 1-2 mm. crasso recto vel flexuoso, solido, tomentoso, pallide luteo, superne brevi 2 vel pluridiviso; ramis aurantiacis 1-2 dichotomice divisis, acutis, concoloribus.

Hab. in pinetis, Bolton, Amer. bor. — *Lachnocladio* affinis.

13. **Clavaria luteo-alba** Rea, Trans. British Mycol. Soc. 1903-1904, 683
p. 66, pl. 3. — Clavulis simplicibus, fasciculatis v. sparsis, farctis, 4-5 cm. alt., 2-3 mm. cr., deorsum sensim tenuatis, apice constanter albis, acutis obtusisve, ceterum saturate flavis; sporis albis lacrimæformibus, h. e. obovatis basi oblique apiculatis, 5-6 × 3.

Hab. inter gramina Invermay, Perthshire Britanniæ. — Præcipue apice jugiter albo ab affinibus dignoscitur.

14. **Clavaria fusiformis** Sow. — Syll. fung. VI p. 718. — var. **Antillarum** Pat. in Duss Enum. champ. Guad. 1903, pag. 14. — A typo differt cæspitibus minus densis, clavulis gracilioribus rubescentibus, in portionem inferiorem albam tenuatis et habitatione. 684

Hab. in fragmentis ligneis putridis in silvis interioribus, Pointe-Noire, Guadalupa (Duss).

15. **Clavaria Michelii** Rea Trans. Brit. Mycol. Soc. 1903, p. 39, *Cl. fragilis* Holmsk. var. *gracilis* Bolt. t. 111, f. 1 (nec Pers.). — Syll. VI, p. 721. — Fasciculata, valde fragilis, tenuis, cylindrica, flava, deorsum alba, clava 4-7 cm. alta, 1-2 mm. cr., cava, apice acuta; sporis albis, subglobosis, 3 × 2. 685

Hab. ad terram sub arboribus in Britannia, Italia, Germania etc. — Teste Fries est *Clavaria minima, nivea* Mich. N. P. G. p. 208, t. 87, f. 6.

16. **Clavaria nivea** Quél. Assoc. franc. p. l'Avanc. Sc. 1901, partie II, 1902, p. 496, tab. III, f. 11. — Cæspitosa; clavula subfiliformi, longa, flexuosa, fragilissima, glabra, nivea, translucida, sursum acuta, subinde bifida, albo-cremea subochracea; sporis ovoideo-pruniformibus, 7-8 µ. longis, minute granulosis, hyalinis. 686

Hab. in pascuis montanis in Jura prope Neufchâtel, autumno (L. Favre). — Affinis *Cl. fragili.*

17. **Clavaria tenerrima** Mass. et Crossl. in the Natur. 1904, p. 2. — Gregaria, subtenax, farcta, candida; clavulis simplicibus, cylindricis, flexuosis, apice subattenuatis; sporis hyalinis subglobosis, apiculatis, verrucosis, 8-9 µ. diam. 687

Hab. in graminosis, Halifax Britanniæ (C. Crossland). — *Cl. fragili* Fr. affinis.

LACHNOCLADIUM Lév. — Syll. VI p. 738, IX p. 252, XI p. 139, XIV p. 239, XVI p. 209.

1. **Lachnocladium strictissimum** P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). — Subcoriaceum, ferrugineum, strictum scopiforme, ca. 15 cm. altum, basi breve crasseque stipitatum ca. 1 cm. crassum, ramis erectis strictissimis, teretibus, ca. 2-3 cm. longis, 1 $^1/_2$-4 mm. crassis, repetito dichotomis vel verticillatis, ramulis subteretibus axillis vix compressis, erectis, apice longe subulatis, fuscidulis nudis; sporis subglobosis vel ellipsoideis, levibus, 5-6 µ. hyalinis 688

Hab. ad terram silvaticam, Rio Madeira ad Marmellos Amazoniæ (Ule).

2. **Lachnocladium hamatum** P. Henn. F. Amaz. I pag. 174 (Hedw. 1904). — Alutaceum, ca. 3-6 cm. altum, erectum, basi brevi stipitatum, ramosum, ramis subteretibus vel compressis, repetito dichotomis, ramulis flexuosis compressis sulcatis, cinereo-pruinosis, subsetulosis, curvulis apicibus cirrato-hamatis; basidiis clavatis, plerumque 2 sterigmatibus, 30-40 × 6-7; sporis ovoideis, hyalinis vel flavidulis, 1-guttulatis, 6-7 × 4-5. 689

Hab. ad terram silvaticam udam in Amazonia (Ule). — *L. cirrato* affine sed sporis aliisque notis diversum.

3. **Lachnocladium madeirense** P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). — Alutaceo-cinereum, strictum, 5-9 cm. altum, stipitibus basi connexis vel liberis usque ad 3 cm. altis, 2 mm. crassis, ramis repetito dichotomis vel verticillatis axillis vix compressis, ramulis teretibus divergentibus, cinereo-setulosis, apice longe subulatis; sporis subglobosis, hyalinis, 2-3 μ. diam. 690

Hab. ad terram v. ligna, Rio Madeira ad Marmellos Amazoniæ. — *Lachnocl. pteruliformi* affine.

4. **Lachnocladium Hoffmanni** P. Henn. Pilz. Costar. und Par. p. 147 (Hedw. 1904). — Incarnatum, coriaceum, ramosissimum, ca. 12 cm. altum, vix stipitatum, ramis repetito dichotomis, late compressis, divergentibus, apicibus subulatis, rarissime bifidis; stipite brevi vel radicato; sporis ellipsoideis vel subovoideis, 4-5 × 3-4, hyalino flavescentibus, levibus. 691

Hab. ad lignum putre, Aguacata, Costarica (C. Hoffmann). — Colore incarnato a speciebus notis mox distinctum.

5. **Lachnocladium Atkinsonii** Bresadola apud Atkinson in Journ. of Mycol. 1902, p. 119. — Subcoriaceum; stipite elongato, compresso-canaliculato, pallido, tomentoso, 5-6 cm. longo, 1 cm. circ. cr., apice subquadrifido; ramis compressis, sulcatis, repetito verticillato aut dichotomo-divisis, latere sterili tomentosulis, luride ochraceis; ramulis subteretibus, apice furcatis, flavido-stramineis; sporis hyalinis vel substramineis, levibus, amygdaliformi-oblongatis vel subcylindraceis 9-10 × 4,5-5,5; basidiis clavatis. 692

Hab. ad Blowing Rock, N. C., Amer. bor. — Species pulchra, ambitu ramorum 6-7 cm. alta, 5-6 cm. lata, gracilitate et colore ad *Clavariam* vergens, sed hymenio unilaterali et stipite evidenter pulveraceo inter *Lachnocladia* adnumeranda.

6. **Lachnocladium mussoorlense** P. Henn. Fungi Indiæ orient. II, in 693

Hedw. 1901, p. 324. — Tuberosum, fasciculato-ramosum, subrufum, 6-8 cm. altum, ramis fasciato-compressis sulcatis, flexuosis, repetito dichotomis v. trichotomis in axillis paullo compressis, haud flabellatis, ramulis compressis, squarrosis, levibus, apice bifurcatis, longe subulatis subteretibus v. denticulatis; sporis ovoideis, basi oblique apiculatis, hyalinis, levibus, 7-8 × 4-5.

Hab. ad terram, Mussoorie, Arnigadh Indiæ orient.

7. **Lachnocladium usambarense** P. Henn. in Bot. Jahrb. 1904, p. 44. 694
— Cæspitosum, pallidum, 6-8 cm. alt.; stipite compresso, plus minus elongato, basi mycelio ramoso, albido, superne repetito ramoso; ramis late compressis, axillis flabellatis, membranaceis, dichotomo ramulosis; ramulis apice subulatis vel palmatifidis, pallidis; sporis ovoideis, hyalinis, asperatis, 5-6 × 3-3,5.

Hab. in ramis terra dejectis supra Amani, Ost Usambara Africæ orient. (Engler).

8. **Lachnocladium Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42. 695
— Syll. XVI, pag. 1116 (nomen). — Coriaceo-papyraceum, late compressum, album, pruinosum, 5-7 cm. altum; stipite compresso e mycelio membranaceo cretaceo oriente usque ad 2 cm. longo, 1 mm. cr., brunneolo, repetite dichotomo v. palmatifido; ramis in axillis late compressis, subflabellatis, ramulis apice membranaceis, palmatifidis v. furcatis, apicibus sæpe longe subulatis; sporis subglobosis v. ovoideis 3,5-4, levibus, hyalinis.

Hab. ad folia putrida in silvis, Kamerun Afr.

9. **Lachnocladium moniliforme** P. Henn. F. S. Paul. III, p. 198 (Hedw. 696
1904). — Stipite sublignoso, sclerotoideo, ramoso, articulato-moniliformi, extus alutaceo pruinoso, intus pallido 3 cm. alto; articulis fragilibus, subovoideis v. oblongis subteretibus 4-10 mm. longis, 3-4 mm. crassis, constrictis, ramis fasciculatis subcoriaceis, ferrugineo-fuscidulis repetito ramosis, plerumque dichotomis, divergentibus, compressis, c. 2-2 1/2 cm. altis, apicibus subulatis; sporis ovoideis, 3-4 μ., hyalino-subfuscidulis, levibus.

Hab. ad terram, Serra da Cantareira, S. Paulo Brasiliæ. — Species notabilis, sed in genere dubia, præcipue ex eo quod basidia non reperta.

PTERULA Fr. — Syll. VI p. 740, IX p. 255, XI p. 140, XIV p. 242, XVI p. 213.

1. **Pterula aurantiaca** P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). 697
— Tenax aurantiaca, sicca alutacea, 4-6 cm. alta, basi fasciculata;

stipite 1-2 cm. longo, 1-2 mm. crasso, tereti, repetito dichotomo vel scopiforme verticillato, axillis compressis, ramulis subcompressis apice subulatis; sporis subglobosis vel ovoideis, hyalinis, levibus intus granulatis 5-7 × 5-6.

Hab. ad terram paludosam, Rio Negro, Manáos Amazoniæ (Ule). — Nonnullis notis ad *Lachnocladii* typum nutat.

2. **Pterula pennata** P. Henn. F. Amaz. I, p. 174 (Hedw. 1904). — 698
Cinereo-alutacea, ca. 5 cm. alta, basi fasciculata, ramis erectis filiformibus utrinque penniformi-ramosis; ramulis recurvatis, subulosis, simplicibus, $1^1/_2$-3 mm. longis, 80-120 μ. crassis; sporis ovoideis vel subpiriformibus, subangulatis, grosse 1-guttulatis, basi oblique apiculatis, hyalinis subflavidulis, 10-13 × 7-8.

Hab. ad lignum putre, Rio Juruá, Juruá Miry Amazoniæ (Ule).

3. **Pterula nana** Pat. Champ. de la Guadeloupe, ser. III, in Bull. 699
Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Albido-rufescens (in sicco); clavulis sparsis, solitariis vel fasciculatis, duris; basidiis clavatis a basi usque fere ad summitates dispositis; sporis hyalinis, levibus, ovoideis, 7-10 × 5-6.

Hab. in ramis putridis arborum variarum in Guadalupa (Duss). — Species exigua 1-1,5 mm. alta, vix 250 μ. crassa, *Mucronellæ* æmula.

4. **Pterula nivea** Pat. Champ. de la Guadeloupe ser. III, in Bull. 700
Soc. Myc. de France t. XVIII, fasc. II, 1902. — Omnino alba, omnino albo-nivea, in sicco rufescens; clavula gracili erecta, cylindrica, subulata, tenaci, simplici vel vix basi ramosa, pluribus in cæspitulos densos e puncto communi orientes congestis; basidiis clavatis in tota superficie partis superioris dispositis; sporis hyalinis, levibus, ovoideis 10-14 × 8.

Hab. ad caudices putres in Guadalupa (Duss). — Fungus 10-18 mm. alt.; clavulæ 330 μ. cr. Affinis *Pter. fasciculari.*

5. **Pterula squarrosa** P. Henn. Fungi parænses II, in Hedw. 1902, 701
p. 16. — Cartilaginea, brunneola, cinereo-pruinosa, ca. 4 cm. longa; stipite subtereti, simplici, 1-2 cm. longo, 0,5-1 mm. cr., ramoso; ramis 1-2 repetito dichotomis, teretibus arcuato-reflexis, ramulis elongato-subulatis, squarrosis, usque ad 2,5 cm. longis, apice rufo-brunneolis, nudis; sporis ovoideis 3-3,5 hyalinis.

Hab. ad terram, in silvis, Parà, Amer. austr.

6. **Pterula fascicularis** Bres. et Pat. in Lloyd Myc. Not. n. 6, p. 50. 702
— Cæspitoso-fascicularis; cæspitulis parvis, 1 cm. circ. alt., 0,5 cm. basi cr.; ramulis cartilagineis, filiformibus, simplicibus v. raro

hic illic ramosis, sordide gilvis; substantia ex hyphis tenacibus, 3 μ. cr.; basidiis clavatis v. subcylindraceis, 30-35 × 9-10; sporis globosis, 9-12 μ. diam.

Hab. in insula Samoa. — *Pt. subsimplici* P. Henn. affinis.

7. **Pterula laxa** Pat. Champ. de la Guadeloupe, ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Clavulis solitariis, sparsis, albis vel rufescentibus, simplicibus vel ramulis patulis 1-3-lateraliter auctis, 250 μ. crass. filiformibus, apice acutis, parte media fertilibus et pruinosis; basidiis clavatis; sporis . . . . ? 703

Hab. in fragmentis putridis Richeriæ grandis, Guadalupa (Duss) — Fungus 5-8 mm. alt., *Pter. simplici* affinis.

PHÆOPTERULA P. Hennings, Monsunia I, 1899, pag. 9. Cfr. Syll. XVI, p. 214 (Etym. *phæos* obscurus et *Pterula*). — A gen. *Pterula* sporulis coloratis, nec hyalinis, præcipue dignoscitur.

1. **Phæopterula juruensis** P. Henn. F. Amaz. I, p. 175 (Hedw. 1904). — Brunneola cinerescens, ca. 1 cm. alta, basi subsimplex vel fasciculata; stipite tereti 2-3 mm. longo, hirsuto-tomentoso, repetito racemoso, ramulis filiformibus, subulatis, squarrosis, cinereo-pruinosis; sporis subglobosis, 1-guttulatis, brunneis, levibus, 4-6 μ. 704

Hab. ad ligna putrida, Rio Juruá, Juruá-Miry Amazoniæ (Ule). — A *Phæopt. hirsuta* omnino diversa, æque ac ab *Hirsutella* Pat.

TYPHULA Pers. — Syll. VI p. 743, IX p. 255, XI p. 141, XIV p. 243, XVI p. 214.

1. **Typhula bipindensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 42. — Syll. XVI p. 1116 (nomen). — Carnosa, simplex, filiformi-clavata, substipitata, fusco-rufa, ca. 3-5 mm. longa, 160-220 μ. cr., vertice rotundata, basi attenuata; basidiis clavatis, 4-sterigmaticis; sporis fusoideis 5-6 × 3, hyalinis. 705

Hab. in foliis putridis, Bipindi, Kamerun Afr.

PISTILLARIA Fr. — Syll. VI p. 752, IX p. 255, XI p. 141, XIV p. 243, XVI p. 215.

1. **Pistillaria Johnsonii** Massee in Kew Bull. 1901, p. 165. — Candida; clavulis simplicibus, erectis, levissimis, sursum albo-pruinosis, in sicco longitudinaliter rugosis, filiformibus, superne clavulatis, 2 mm. altis; sporis ellipsoideis, hyalinis, 2 × 1. 706

Hab. in caule herbaceo emortuo in horto botanico Aburi, Gold

Coast Africæ occident. (Johnson). — Gregaria, *P. puberulæ* Berk. affinis.

2. **Pistillaria Quercus** Oud. Contrib. Fl. Myc. des Pays XVIII, p. 674. 707
— Albida, 800 × 120, irregularis; basidiis obovatis 8-12 × 6-7 tetrasporis; sporis obovatis 4 × 2,5 hyalinis; sterigmatibus cylindraceis 3 μ. long., paraphysibus filiformibus simplicibus vel summo bifurcatis 1-1,5 μ. long. obvallatis.

Hab. in foliis putridis Quercus Roboris, Bussum Hollandiæ.

3. **Pistillaria cæspitulosa** Sacc. in Atti Congr. bot. di Palermo 1902. 708
— Microscopica, sordide alba, hinc inde in cæspitulos aggregata; clavulis e basi communi carnosula (4-10) divergentibus, cylindraceis, apice obtusulis, sursum minutissime asperulis, 600-800 μ. altis, 100-130 μ. cr., contextu anguste prosenchymatico, carnosulo; hyphis in parte clavulæ superiore breviter exsertis et in basidia 14-16 × 2, minute denticulata patula abeuntibus; sporis e denticulis oriundis, oblongo-ellipsoideis, basi apiculatis, 10-12 × 3, biguttulatis, dein spurie 1-septatis, hyalinis.

Hab. in cortice emortuo Loniceræ Periclymeni, Côte d'Or Galliæ. — Ab affinibus *P. pusilla, P. diaphana* certe differt, basidiis potius denticulatis quam sterigmatophoris; tamen ad Stilbaceas referre nequeo.

4. **Pistillaria Ferryi** Quél. et Fautr. — Syll. XI, p. 141. — *** P. tremula** Sacc. subsp. nov. — Vix capillaris, tenuissima, sed proportione elongata, 3-5 mm. long. vix 80-100 μ. cr., tota persistenter candida, tremula et exsiccando varie tortuoso-contorta, tota longitudine fertilis et ob basidia prominentia puberula, æqualis, vix summo apice attenuata sterilis; basidiis tereti-oblongis transverse parallelis, 18-20 × 5-6, sterigmatibus binis acicularibus coronatis; sporis obovoideis basi apiculatis, 8-11 × 3-3,5, sæpius 1-guttulatis, hyalinis. 709

Hab. ad fructum putrem Trichosanthis anguineæ, ubi Botrytis vulgaris et Acremoniella atra jam viguerant, in horto botanico Patavino, febr. 1904. — In capsula vitrea se evolvit Tota fertilis, vix ima basi parum distincta sterilis nec non summo apice hyphis paucis laxe fasciculatis formato. Tenuitate extrema vere mucedinea dignoscitur. Interdum clavulæ 2-4 basi fasciculatæ oriuntur. A typo differt colore immutato, statura minore etc.; a *P. Patouillardi* Quél. sporis multo majoribus, a *P. mucedinea* Boud., quia longior et exilior, et basidiis bisporis, a *P. at-*

tenuata, quia numquam ramosa et multo minor, ab omnibus stipite subnullo.

PHYSALACRIA Peck — Syll. VI p. 759, IX p. 256.

1. **Physalacria changensis** Rostr. in Bot. Tidsskrift-Copenhagen, 1902, v. 24, p. 206. — Flavo-brunnea, cæspitosa; capitulo globoso, vesiculoso-inflato, membranaceo glabro, 3-4 mm. diam., basi circulari perforato; stipite gracili, circ. 1 cm. longo; sporis ellipsoideis, minutis; cystidiis clavatis, 32 × 12. 710

Hab. in truncis, Siam Asiæ merid.

Fam. 6. **Tremellaceæ**

(sensu lato h. e. *Hymenomycetæ heterobasidiæ*).

SACCOBLASTIA Moell. — Syll. XIV, p. 244.

1. **Saccoblastia graminicola** Bres. Fungi Polonici, in Ann. Mycol. 1903, p. 112. — Late effusa, tomentosa, alba, dein straminea, ex hyphis laxe intertextis, septato-nodosis, 4-7 μ. crassis, formata; basidiis erectis, cylindraceis, 3-4-septatis, 60-90 × 5-6, basi sacculo obovato-elongato, 15-20 × 8-9 sæpe præditis; sterigmatibus filiformibus, 9-15 μ. longis; sporis ovalibus, hyalinis, 8-12 × 5-8, mox apice germinantibus. 711

Hab. ad gramina sicca, quæ simul conglobat, in Polonia. — Habitus omnino *Hypochni* vel *Corticii;* basidia non omnia basi sacculo prædita mult enim omnino simplicia ideoque non satis a *Stypinella* mihi videtur hoc genus distinctum et potius ceu subgenus considerandum. (Brés. l. c.).

SEPTOBASIDIUM Pat. — Syll. XI p. 118, XIV p. 215, XVI p. 184.

1. **Septobasidium fusco-violaceum** Bres. Fungi Polonici, in Ann. Mycol. 1903, p. 112. — Longe lateque effusum, membranaceum, ambitu fimbriato, castaneo- vel tabacino-violaceum, demum cinerescens; hymenio tuberculoso v. rugoso-plicato; contextu ex hyphis coloratis, subluteis, 3-3 $^1/_2$ μ. crassis conflato; basidiis cylindraceis, apice curvatis, hyalinis, 3-4-septatis, 2 $^1/_2$-3 μ crassis; sporis hyalinis, cylindraceo-curvatis, 10-15 × 4-5, una alterave 21 × 6 μ.; hyphis subbasidialibus hyalinis, 2 $^1/_2$-3 μ. crassis. 712

Hab. ad ramos Salicis cinereæ, in Polonia. — Species hæc

media inter *Septobasidium* et *Helicobasidium*. Habitu et consistentia membranacea *Septobasidium* refert, sed basidiis primitus non ovoideis ad *Helicobasidium* vergit. De cetero forsan nota generica vere differentialis inter duo ista genera nondum satis elucet.

2. **Septobasidium Mariani** Bres. in Sacc. Notæ Mycol. III in Syd. Ann. Mycol. 1903, n. 1. p. 24, *Hypochnus Michelianus* Cald. var. *quercinus* Sacc. olim. — Resupinatum, longe lateque effusum, contextu spongioso-molli, fusco-tabacino, ex hyphis fasciculatis, erectis, sub micr. fulvis, 4-4 $^1/_2$ µ. crassis, conflato; hymenio membranaceo, levi, pallide umbrino vel subspadiceo, margine fibroso-strigoso; basidiis ex obovato cylindraceis, erectis vel subcurvulis, 3-septatis, 30-40 × 4 $^1/_2$-5; sporis cylindraceo-subclavatis, curvulis, hyalinis, demum 1-septatis, 13-18 × 3 $^1/_2$-5. 713

Hab. in truncis vivis junioribus adhuc levigatis Quercus pedunculatæ, Montello (Treviso) 1870 (Saccardo); in ramis vivis Piri communis, quam valde vexat, Miane (Treviso) 1902 (Ab. P. Canello); in ramis Piri et Cratægi in silva Cisterna prope Romam (Mariani).

3. **Septobasidium paulense** P. Henn. F. S. Paulens II, p. 197 (Hedw. 1904). — Resupinato-effusum, cinereum, pruinosum, contextu molle coriaceum, floccosum; hyphis ramosis, septatis, 3-4 µ. crassis, sæpe cirratis, fuscidulis; sporis subglobosis v. ovoideis, 13-18 µ., episporio subfuscidulo. 714

Hab. ad ramos arborum, Alto da Serra S. Paulo Brasiliæ. — *Sept. velutino* affine.

PLATYGLŒA Schroet. — Syll. VI p. 771, XI p. 146, XIV p. 247, XVI p. 216.

1. **Platyglœa miedzyrzecensis** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 113, t. III, fig. 3. — Pulvinata; pulvinulis gelatinosis, gregariis, subrotundatis vel oblongis, levibus vel demum rugoso-cerebriformibus, albis, 2-4 mm. diam. aut 2-4 × 1 $^1/_2$-3 mm. in sicco collapsis et fuscescentibus; contextu ex hyphis intricatis, laxe septatis, ad septa interdum nodosis, 1-2 $^1/_2$ µ. crassis, ramosis, apice basidiophoris, conflato; basidiis cylindraceis vel subclavatis, rectis vel subarcuatis, 75-200 × 4-6, 3-5-septatis; sterigmatibus 50-60 × 4, apice ventricoso-cuspidatis; sporis hyalinis, obovatis, apiculatis, 10-13 × 7-9, lateraliter germinantibus; conidiis subglobosis, 4-5 × 3 $^1/_2$-4. 715

Hab. ad corticem Ulmi, in Polonia.

2. **Platyglœa nigricans** Schröt. — Syll. VI p. 771. — Huc, teste v. 716

Höhn. in Ann. Mycol. 1904, p. 273, spectant *Stictis Betuli* v. *nigrescens* Fr., *St. Tiliæ* Lasch, *Achroomyces pubescens* Riess, *Tachaphantium Tiliæ* Bref.

TREMELLA Dill. — Syll. VI p. 780, IX p. 258, XI p. 147, XIV p. 249, XVI p. 218.

1. **Tremella inflata** Pat. Charp. de la Guadeloupe, ser. III, in Bull. soc. myc. de France t. XVIII, fasc. II, 1902. — Gelatinosa, cava, globoso-depressa, albido-luteola, sparsa vel aggregata, levis, 3-8 mm. lata; hyphis conidiferis longis, ramosis; conidiis ovatis 1-2 μ. longis; basidiis profunde insertis ovatis, 20-25 × 8-10; sterigmatibus oblongis, subulatis; sporis ovatis levibus, 7-8 × 6 hyalinis. 717

   Hab. ad lignum emortuum Guadalupa Amer. sept.

2. **Tremella rosea** v. Höhnel in Ann. Mycol. 1903, I, pag. 394. — Minutissima, 250 μ, 1 mm. lata, hemisphærica, pulvinata, sæpe irregulariter diffluens, e roseo rufescens, gelatinoso-carnosa; hyphis subtilibus 2-4 μ. latis, septatis, hyalinis, hinc inde ad septa noduloso-incrassatis; basidiis ovoideo-globosis, cruciatim partitis 14 μ. latis; sporis ovatis v. subsphæroideis, 8-9 μ. cr. 718

   Hab. in caulibus siccis Parietariæ officinalis, Vindobonæ Austriæ.

3. **? Tremella phyllachoroidea** Saccardo, Harrim. Alaska Exped. Crypt. pag. 42, tab. III, fig. 11. — Erumpenti-adnata, epiphylla, applanato-pulvinata, ambitu suborbicularis vel oblonga, 2-4 mm. diam., 7-1 mm. crass., uda exquisite gelatinosa, superficie nigra, opaca, minute rugulosa, intus pallidior, tota filamentosa; filamentis seu hyphis angustissime filiformibus, 1,5-2 μ. cr, longissimis, varie intricatis, furcatis vel varie ramosis, hyalinis, intus granulosis, apicibus subinde lenissime incrassatis, obtusis; basidiis....; sporis.... 719

   Hab. ad folia dejecta Menziesiæ ferrugineæ, Silka Alaska (Mertens). — Videtur affinis *Tremellæ atro-virenti* Fr.; dubia tamen, quia sterilis.

4. **Tremella Patouillardi** Syd. Ann. Mycol. 1903, p. 177. — Ita vocanda *T. inflata* Pat. Bull. Soc. myc. 1902, p. 178, nec Fr.

NÆMATELIA Fr. — Syll. VI p. 792, IX p. 259.

1. **Næmatelia** . . . . . H. M. Ward in Trans. Brit Mycol. Soc. 1899-1900, p. 143, t. VI et VII. 720

   Hab. ad folia pinea in Britannia. — Est status chlamydospo-

rus omnino peculiaris, a typo generis non parum deflectens. Chlamydosporæ *Mycogonem* in mentem revocant.

GUEPINIA Fr. — Syll. VI p. 805, XI p. 150, XIV p. 252, XVI pag. 221.

1. **Guepinia pezizoidea** P. Henn. F. S. Paul. III, pag. 197 (Hedw. 1904). — Orbiculari-pulvinata vel subcupulata sessilis, succinea, extus subvelutina, 1-2 mm. diam., basidiis linearibus 2-sterigmaticis, 40-50 × 3-4; sporis cylindraceis, curvatis, 3-septatis, loculis 1-guttulatis, hyalinis, 12-14 × 4-5. 721

   Hab. ad ramos putres, Alto da Serra, S. Paulo Brasiliæ. — *Guep. Peziza* affinis, sed omnino sessilis extusque subvelutina.

2. **Guepinia juruensis** P. Henn. F. Amaz. I, p. 171 (Hedw. 1904). — Pileo subgelatinoso, sicco corneo, spatnulato vel flabelliformi erecto, margine crenulato ciliatoque v. inciso-lobato, superne tomentoso ferrugineo, pilis flexuosis, cirratis, hyalino-fuscidulis, 10-25 × 3-3½; hymenio castaneo levi, 3-12 mm. longo latoque; stipite subtereti, ferrugineo-velutino, 3-12 × 1-1½; sporis subcylindraceis curvulis, obtusis, 3-septatis, hyalinis. 722

   Hab. ad truncos emortuos, Rio Juruá, Bom Fim Amazoniæ (Ule). — Species prædistincta, *Polyporum* quemdam spathulatum v. *Stereum obliquum* in mentem revocans; *Guep. dilatatæ* forte affinis.

3. **Guepinia monticola** Tracy et Earle in Plantæ Bakerianæ fasc. I, fungi p. 23. — Cupulata ferruginea, breve stipitata, expansa, in sicco revoluta, 3-8 mm. diam., externe sulcato-costata; setulis inflatis, 50 μ. longis, basi 20-25 μ. cr. vestita; hymenio compacto, cylindrico, basidiis luteolis, 40-50 × 3,5 superne bifurcatis, composito; sporis cylindraceis, curvulis, continuis (?), guttulatis, 12-16 × 4, sterigmatibus filiformibus, circ. 10 μ. longis. 723

   Hab. in ligno decorticato Piceæ Engelmanni, Glide Rock Cañon, South Colorado, Amer. bor.

4. **Guepinia lutea** Bresadola, Harrim. Alaska Exped. Crypt. p. 42. — Gregaria v. subcæspitosa, tremelloso-tenax, flavo-lutea; conceptaculis cupulari-stipitatis; cupula glabra, complanato-concava, margine sinuoso, disco hymeniophoro, 2-5 mm. lata; stipite 1-4,5 mm. longo, 5-1 mm. crasso, basi demum fuscidulo; basidiis cylindraceis, apice subcapitatis, 45-50 × 3-4, bifidis; sporis subcylindraceis, subcurvatis, 5-9-septatis, 18-20 × 6-7. 724

   Hab. ad truncos, Orca et Lowe Juiet B. C. Alaska (Trelease).

— *Guepiniæ merulinæ*, cujus gaudet structura, affinis; differt cupula et stipite levibus nec non sporis majoribus magisque septatis.

5. **Guepinia alpina** Tracy et Earle in Plantæ Bakerianæ fasc. I, fungi p. 23. — Cupulata, breve stipitata; disco luteo-aurantiaco, in sicco 6 mm. diam, margine leviter involuto; stipite pruinoso, 3 mm. alto, setulis inflatis, 50 × 16, simplicibus vel 1-septatis, non constrictis, minute rugulosis; hymenio compacto; basidiis granulis luteis repletis, subsimplicibus, inferne bifurcatis, 40 × 3,5; sporis oblongis, continuis, immaturis 12 × 4 725

Hab. in lignis dejectis Piceæ Engelmanni, Glide Rock Cañon, South Colorado, Amer. bor.

EXIDIA Fr. — Syll. VI p. 772, IX p. 257, XI p. 146, XIV p. 249, XVI p. 217.

1. **Exidia minutissima** v. Höhn. Ann. Mycol. 1904, p. 38. — Minutissima, rotundata, verruciformis v. oblonga, hinc inde confluens, e cæsio vel griseo in colorem albidum v. hyalinum vergens, subgelatinosa, 70-120 μ. lata; hyphis radiantibus, dendroideo-v. coralloideo-ramosis, hyalinis, 1-1½ μ. crassis, in apice sæpe globoso-incrassatis; basidiis ovoideis, supra truncatis, cruciatim partitis, 8 × 7, sterigmata quatuor, flexuosa, 10 × 1,5 gerentibus; sporidiis oblongis, rectis, uno latere subdepressis, supra rotundatis, infra lateraliter et oblique apiculatis, granuloso-farctis, 5-8 × 2-3½, sæpe 5-7 × 2-3. 726

Hab. in ligno carioso Fagi in silvis ad Wassergesprenge, Wiener Wald Austriæ inferioris mense Octobri anno 1903. — Species quoad genus dubia.

ULOCOLLA Bref. — Syll. VI p. 777, XVI p. 218.

1. **Ulocolla badio-umbrina** Bres. Fungi Polonici in Ann. Mycol. 1903, p. 115. — Receptaculo primitus tuberculiformi dein pulvinato et gyroso-cerebriformi, gelatinoso, parvo, 3-6 mm. lato, lateritio-badio v. badio-umbrino, sæpe confluenti, exsiccando collapso, levi; sporis hyalinis, cylindraceo-curvulis, 12-14 × 4½-5; conidiis baculiformibus, 3 × 1; basidiis obovatis, 12-18 × 9-12; hyphis ramosis, 2 μ. circiter crassis. 727

Hab. ad ramos corticatos Salicis cinereæ et Alni glutinosæ, in Polonia. — Sporas quoque vidi lateraliter germinantes, promycelium breve emittentes, apice conidium parvum, subglobosum gerens.

TREMELLODENDRON Atkins. Journ. of Mycol. 1902, p. 106 (Etym. *Tremella* et *dendron* arbor). — A *Sebacina* differt præsertim, quia non incrustans et quia contra est libera, ascendens et dendroidea.

1. **Tremellodendron candidum** (Schw.) Atk. l. c., *Merisma candida* Schw., *Telephora candida* (Schw.) Fr. — Syll. VI p. 535.
2. **Tremellodendron Schweinitzii** (Peck) Atk. l. c., *Thelephora Schweinitzii* Peck — Syll. VI p. 534.

SEBACINA Tul. Ann. Sc. nat. Bot. XV, p. 223 (1871) — Syll. VI p. 521, XI p. 117, XIV p. 13 et 214, XVI p. 183 (Etym. *sebum*).

1. **Sebacina podlachica** Bres. Fungi Polonici in Ann. Mycol. 1903, 728
pag. 117. — Late effusa, arcte adnata, crassiuscula, gelatinosa, e pallido-cærulea cæsio-hyalina; hymenio sublevi vel parum undulato; sporis hyalinis, subpiriformibus v. subcylindraceis, uno latere depressis, 7-9 × 4-5; basidiis obovatis, 9-10 × 6-8, 2-4-sterigmaticis; sterigmatibus usque ad 40 μ. longis; hyphis conglutinatis, 1-1 $^1/_2$ μ. crassis.

Hab. ad ligna Betulæ, in Polonia.

HIRNEOLINA (Pat.) Bres. in litt., *Eichleriella* Bres. Fungi Polonici in Ann. myc. 1903, pag. 116, *Sebacina* sect. *Hirneolina* Pat. Essai taxon. 1900, p. 25, f. 17 (Etym. *Hirneola*, cui affinis). — Fungi membranaceo-ceracei v. membranaceo-subgelatinosi, cupulares vel plano-concavi, raro penduli. Hymenium typice superum, discoideum, tantum in formis pendulis inferum, leve v. subrugulosum. Basidia globoso-ovoidea, cruciatim partita, 2-4-sterigmatica. Sporæ hyalinæ, cylindraceæ, subcurvulæ. Est *Stereum* vel *Cyphella* fructificatione tremellacea.

1. **Hirneolina incarnata** Bres. in litt., *Eichleriella incarnata* Fungi 729
Polonici in Ann. Mycol. 1903, pag. 116, t. III, f. 1. — Receptaculo membranaceo, expanso-resupinato, oblongo v. subrotundato, margine demum libero, revoluto, sericeo, pallido, subumbrino, 1-3 cm. lato, ex hyphis contextis, horizontaliter positis, 2-4 μ. crassis conflato; hymenio levi v. subrugulosa, membranaceo-subgelatinoso, pallide roseolo; basidiis obovatis, longitudinaliter partitis, 2-4-sterigmaticis, 16-21 × 10-13; sporis hyalinis, cylindraceo-curvulis, demum spurie 1-3-septatis, 13-18 × 5-6; hyphis subbasidialibus, 2 μ. crassis, mox horizontalibus.

Hab. ad ramos arborum frondosarum et Berberidis vul-

garis. — E forma valde *Cyphellæ flocculentæ* (Fr.) accedit, cum qua forte hucusque confusa; etiam *Stereo ochroleuco* Fr. sat similis.

2. **Hirneolina leucophæa** Bres. in litt., *Eichleriella leucophæa* Bres. 730
l. c. t. III, f. 2. — Receptaculo membranaceo, erumpenti, cupuliformi, sæpe pendulo, libero, raro late expanso et stereiformi, fusco-umbrino, villoso-tomentoso, ex hyphis horizontalibus, 3 μ. crassis, conflato, 5-12 cm. lato; hymenio levi, membranaceo-ceraceo, subgelatinoso, pallido; basidiis longitudinaliter partitis, obovatis, 2-4-sterigmaticis, 18-27 × 9-12; sporis hyalinis, cylindraceo-curvulis, demum spurie 1-3-septatis, 14-18 × 5-5$^1/_2$; hyphis subbasidialibus, 2-3$^1/_2$ μ. crassis

Hab. ad ramos Carpini Betuli in Polonia. — Specimina hujus speciei, ex agro lipsiensi a cl. Winter missa, etiam in meo herbario sub nomine *Sterei ochroleuci* Fr. inveni.

HETEROCHÆTE Pat. — Syll. XI p. 144, XIV p. 247.

1. **Heterochæte europæa** v. Höhnel in Ann. Mycol. 1903, I, p. 393. 731
— Fungus late effusus, e carneo pallidus, fere hyalinus, gelatinoso-translucens, supra levis vel (in statu sicco) hinc inde rugis elevatis præditus, tomento albo velutinus, floccis sæpe planis, ex hyphis hyalinis, 3 μ. crassis, parallele conglutinatis formatis, supra sæpe fimbriatis, 200-400 μ. longis, in basi 40-100 μ. latis, acutiusculis; basidiis biseriatis, globoideo-ovatis, cruciatim partitis, apice sterigmata 4-gerentibus, 16 × 12; sporis cylindraceo-curvulis, granuloso-guttulatis, hyalinis, continuis, 16 × 6-8.

Hab. ad Fagi corticem levem in valle Schedinaz pr. Jaize, Bosniæ.

TULASNELLA Schroet. — Syll. VI pag. 625, XIV pag. 234, XVI pag. 202.

1. **Tulasnella Eichleriana** Bres. Fungi polonici, in Ann. Mycol. 1903, 732
p. 113. — Longe lateque effusa, tenuis in vegeto subgelatinosa, cinereo-violacea, in sicco furfuracea, pallide roseola; hymenio scabriusculo; sporis (conidiis sec. Juel) hyalinis, subglobosis vel obovatis, 3$^1/_2$-5 × 3-3$^1/_2$ lateraliter germinantibus et sporam secundariam (sporidiolum) gignentibus; basidiis obverse obovatis vel clavato-subcapitatis, 12-13 × 5-6; sterigmatibus (sporis sec. Juel) quaternis, ex ovoideis apice elongato-subulatis; hyphis hyalinis, septatis 2$^1/_2$-3$^1/_2$ μ. crassis.

Hab. ad ligna putrescentia Betulæ, in Polonia.

2. **Tulasnella pallida** Bres. Fungi Polonici, in Ann. Mycol. 1903, 733
p. 114. — Late et interrupte effusa, tenuissima, in vegeto subgelatinosa, hyalina, in sicco pallida, hymenio sublevi; sporis hyalinis, obovato-elongatis vel subpiriformibus, raro apice subapiculatis tuncque subfusoideo-ventricosis, 8-14 × 4½-6½; basidiis obverse obovatis, 10-14 × 8-10; sterigmatibus bene evolutis, basi subfusiformibus, apice subulatis; hyphis hyalinis, septatis, 4-6 μ. cr.; sporis secundaris quoque observatis.

Hab. ad ramos corticatos arborum frondosarum, in Polonia. — Sporis interdum utrinque attenuatis ad *Tulasnellam violaceam* accedit.

3. **Tulasnella pinicola** Bres. Fungi Polonici, in Ann. Mycol. 1903, 734
p. 114. — Late et interrupte effusa, tenuis, in vegeto gelatinosa hyalina, in sicco subcartilaginea et fusca; hymenio sublevi, undulato dein collapso; sporis obovatis, uno latere subcompressis, hyalinis, 8-10 × 5-6, lateraliter germinantibus et sporam secundariam (sporidiolum) gignentibus; basidiis clavato-capitatis vel obovatis, 12-21 × 8, 1-4-sterigmaticis, sterigmatibus demum valde productis, basi obovatis; hyphis hyalinis, septatis, 2-4 μ. cr.

Hab. ad ligna Pini silvestris, in Polonia. — A *Tulasnella incarnata* (Tul.) Juel colore et sporis diversa.

4. **Tulasnella violacea** (Joh. Ols.) Juel — Syll. XIV p. 235 var. 735
lilacea Bres. Fung. Polonici in Ann. Mycol. 1903, p. 114.

Hab. ad ramos corticatos arborum frondosarum, in Polonia. — A typo differt colore in vegeto lilacino, in sicco pallescente et sporis 8-14 × 5-7. Sporæ, ut in typo, fusoideæ, utrinque apiculatæ, hilaliter germinantes et sporam secundariam, obovatam, 10 × 7, gignentes; basidia obovata, 12-13 × 8-10; hyphæ septatæ, 4-6 μ.

5. **Tulasnella calospora** (Boud.) Juel loc. cit. pag. 23. — Syll. XIV
p. 235 — *Prototremella* Boud. Journ. de Bot. 1896, p. 85 c. fig.

Hab. quoque ad ligna mucida Quercus, in Polonia. — Sporæ in hoc specimine polonico, 26-45 × 4-6, ut in typo, fusoideæ et sæpe flexuosæ; basidia clavato-subcapitata, 12 × 9; sterigmata 2-4, demum basi late obovata et longe subulato-producta; hyphæ 3-6 μ. crassæ (Bresadola, Fungi polonici in Ann. Mycol. 1903, p. 114).

DACRYOMYCES Nees — Syll. VI pag. 796, IX p. 259, XI p. 148, XIV p. 252, XVI p. 220.

1. **Dacryomyces tristis** Pat. in Duss Enum. champ. Guadel. 1903, 736

p. 11. — Olivaceo-virens, gelatinoso-mollis, sessilis, subglobosa, cerebriformis; hymenio amphigeno; basidiis cylindricis, furcatis, 35-40 × 5-6; sporis incoloribus ovoideis, basi tenuatis, continuis, 9-12 × 4-6.

Hab. ad ligna putrida, Basse-Terre, Guadalupa (Duss). — Fungus 4-10 mm. diam., sparsus v. confluens et tunc massam 1-2 cm. longam formans.

EUCRONARTIUM Atkinson in Journ. of Mycology 1902, vol. 8, p. 107 (Etym. *Eu* bene et *Cronartium*). — Fungilli plus minusve erecti, filiformes, columnares, in sicco duri, subgelatinosi; hymenium lateraliter tectum vel expositum. Basidia curva vel flexuosa, tenella, transverse divisa, 4 sterigmata (raro 3 vel 5) gerentia; sporæ continuæ, albo-hyalinæ. — Habitus *Typhulæ muscicolæ* (Pers.) Fr.

1. **Eucronartium typhuloides** Atkinson l. c. — Albidum, filiforme, 737
conicum, gradatim curvulum, basi tenellum, 10-15 mm. altum, 0,5-1 mm. crassum, interdum pro columnis confertissimis subanastomosantibus videtur clavulatum, longitudinaliter sulcatum, generaliter sparsum; basidiis curvulis, plus minusve sinuosis, 3-5-septatis, 25-40 × 6-9; sterigmatibus flexuosis, elongatis, 10-20 × 3-4; sporis fusoideis, curvis vel inæquilateraliter granulosis, 18-24 × 3,5-5.

Hab. in foliis vivis muscorum, in silvis Cascadilla, Ithaca, Amer. bor. (H. H. Wheetzel).

GASTEROMYCETÆ *)

Syll. Fung. VII p. 1, IX p. 262, XI p. 152, XIV p. 254, XVI p. 224.

Fam. 1. **Phallaceæ** Fr.

ITHYPHALLUS Fr. — Syll. VII p. 8 et 469, IX p. 262, XI p. 153, XVI p. 1118.

1. **Ithyphallus impudicus** (F.) Fr. — Syll. VII, p. 263. — var. **carneus** Lemmermann in Abh. Nat. Ver. Brem. 1901, p. 183 c. icone. — A typo differt quia minor (9 cm. alt.) carneus; sporis paullo minoribus, 2,7-4 × 1,3-1,5 (nec 4 × 2), tereti-subpiriformibus, chlorinis. 73

   Hab. in dumetis insularum Frisiæ orient.

2. **Ithyphallus sanguineus** (P. Henn.) Sacc. et D. Sacc. *Phallus sanguineus* P. Henn. in Engl. Bot. Jahrb. 1901, p. 57. — Syll. XVI, p. 1118 (nomen). — Altus 10-13 cm.; stipite utrinque attenuato 1,5–2 cm. crasso, incarnato, cavo pariete e 2-3 (apicem versus e 1-2) stratis composito, volva lobata pallida; pileo ovoideo-clauso, haud limbato, ca. 2–2,5 cm. alto latoque; sporis oblonge ellipsoideis 3,5–4,5 × 1,5 hyalino-chlorescentibus. 73

   Hab. in silvis udis ad radices, Kamerun Afr.

BLUMENAVIA Möller — Syll. XI p. 154.

1. **Blumenavia usambarensis** P. Henn. Fungi Afr. orient. II, p 37, in Bot. Jahrb. XXVIII, pag. 37. — Receptaculo oblongo-ovato, ca. 8 cm. alt., 2,5-3 cm. lato (in alcoole), e 5 ramis verticalibus, pluristratosis consistente; ramis subquadrangularibus vel 74

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*) Conferendæ sunt contributiones variæ recentiores de Gasteromycetis cl. virorum Bucholtz, Ed. Fischer, P. Hennings, L. Hollos, C. G. Lloyd, O. Mattirolo, L. Petri, White, ubi plurima genera et species tam morphologice quam systematice illustrantur vel emendantur.

triangularibus superne attenuatis, ca. 5–6 mm. latis, ca. 1 cm. latis, extus transverse lamelloso-favosis, rugulosis, albidis, intus lateraliter appendicibus membranaceis triquetris vel dentiformibus, interdum incisis, usque ad 5 mm. diam., glebam olivaceo-atram sustinentibus præditis; sporis subcylindraceis, hyalinis, 3-3,5 × 1,5; volva irregulariter lobata, extus pallida, subolivaceo-maculata, 3, 5-4 cm. diam.; mycelio radiciformi, ramoso, pallido.

Hab. ad terram Usambara in Afr. orient. (Scheffler, Kummer).

CLATHRUS (Mich.) L. — Syll. VII p. 18, IX p. 264, XI p. 154, XIV p. 225, XVI p. 228.

1. **Clathrus** (*Clathrella*) **Baumii** P. Henn. in Ergebn. der Kunene- 741
Sambesi Expedit. pag. 164 (1902). — Receptaculo oblongo-ovoideo, reticulato, basi attenuato substipitato e 5-6 ramis partito, 6-10 cm. alto, 3-5 cm. lato, flavo-aurantio, ramulis teneris 1-stratosis, fistulosis, fasciatis, plicatulis, 2-2,5 mm. latis, in axillis verrucam ferentibus pulpa sporarum atro-violacea tegentem interstitiis polyhedricis oblongis 5 mm. 2 cm. longis, 5 mm. 1 cm. latis; sporis oblonge fusoideis v. cylindraceis, 4-5 × 1,5 hyalinis; volva tenui papyracea, albida, lobata, mycelio albido. Fœtens.

Hab. in silvis Longa prope Mapalanka Africæ austr. — *Cl. camerunensi* et *Cl. chrysomycelino* affinis.

DICTYOBOLE Atkins. Bot. Gaz. 1902, p. 43 (Etym. *dictyon* rete et *bole* jactus). — Fungus stipitatus, volvatus et pileatus; stipes cavus e pariete concamerata formatus, apice pileo parum evoluto, gleba tecto coronatus. Gleba dimorpha, pars apicalis laminis radiantibus copiosis, brevibus sterilibus percursa, inferior demum in lobos irregulares convolutos subclathratos partita. Sporæ unicellulares, leves, pallide olivaceo-brunneæ.

1. **Dictyobole texensis** Atkins. et Long. l. c. f. 3. — Initio subter- 742
ranea, dein emergens, 7-10 cm. alt.; stipite albido-cremeo crasse cylindrico, deorsum leniter tenuato: pileo apice impervio, gleba avellanea, dein nigra; radiis 8–16, superficie rugosis, senio subreticulatim divisis; sporis irregulariter ovoideis, 3-4 × 2-3, olivaceo-fuscis; volva lata, alba, circumscissa, basi radicante.

Hab. in solo arenoso, Denton Texas Amer. bor. — Planta vegeta fortiter, nec ingrate olet. Ad Clathreas spectat.

LYSURUS Fr. — Syll. VII p. 22, IX p. 264, XVI p. 229.

1. **Lysurus borealis** (Burt) P. Henn. *Anthurus borealis* E. A. Burt. 743
Syll. XI, pag. 155. — var. **Klitzingii** P. Henn. in Hedw. 1902, p. 173. — Mycelio filiformi v. radiciformi, ramoso, albido; exoperidio primo subgloboso dein ovoideo-ellipsoideo usque ad 3 cm. longo, 2,5 cm. lato, volva extus albida, papyracea, medio gelatinosa, intus membranacea, alba, longitudinaliter striis 5-7 incrassata, 2-5 irregulariter lobata; stipite clavato, basi valde attenuato, ad apicem usque ad 2 cm. incrassato, 2-7,5 cm. longo, intus omnino cavo, extus albido reticulato-celluloso, pariete inferne 1-2, superne 3-stratoso, apice annulato-subincrassato, in lacinias 5-7 anguste lanceolatas diviso; ramis medio longitudinaliter sulcatis, sulco ad apicem late planeque nudo, albo subsericeo, sed ubique extra basim introrsum transverse rugosis, albidis, massa castanea sporarum vestitis, deinde liberis, separatis, erectis, apice obtusis v. subacutis 1-2,8 × 0,4-0,5 cm.; basidiis oblonge clavatis, continuis; sporis 5-8 ellipsoideo-subfusoideis, hyalino-chlorinis 3,5-4 × 1,5-2,

Hab. in arenosis cultis Ludwigslust-Mecklemburg (H. Klitzing).

ANTHURUS Kalchbr. — Syll. VII p. 23, XI p. 155.

1. **Anthurus trifidus** Har. et Pat. Champ. rec. au Japon, in Bull. du 744
Mus. d'hist. nat. 1902, n. 2, p. 132. — Stipite cavernoso, volvam non superante, stipiti adpressam et æquilongam, cylindraceo, brevissimo, 2 cm. circ. alto, 1 cm. diam., apice in tres lacinias elongatas, acutas, sursum attenuatas, erectas et paullum ad centrum incurvas, 5 cm. longas, diam. basi $1^1/_2$ cm., dorsaliter leviter canaliculatas, intus rugulosas et fructiferas, sectione triangulares, diviso.

Hab. ad terram, Tokyo Japoniæ (Harmand).

Fam. 1. Nidulariaceæ Fr.

CYATHUS Hall. — Syll. VII p. 32, IX p. 226, XI p. 156, XIV p. 256, XVI p. 229.

1. **Cyathus hirsutus** (Schäff.) Sacc. *C. striatus* Willd. — Syll. fung. 745
VII, p. 33, *Cyathia hirsuta* (Schäff.) White *) The Nidul. of N.

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*) Nomen *Cyathia* P. Browne, Civ. and Nat. Hist. Jamaica, pag. 78 (1756),

Amer. in Bull. Torr. bot. Cl. 1902, p. 259, var. **infundibuliformis** White l. c. p. 261, pl. 14, f. 15. — A typo differt peridio omnino infundibulari, sparse strigoso-piloso; sporis 14-17 × 8-12.

Hab. in foliis et muscis, Montana Amer. bor.

2. **Cyathus durus** White l. c. p. 261, pl. 14, t. 16-19 (*Cyathia*). — 746
Peridiis late patenti-infundibuliformibus, 8-13 mm. alt., 8-12 mm. latis (apice), 2-4 mm. lat. (basi), extus brunneo-griseis, squamuloso-rugosis, vere duris, sed fragilibus, pariete interiore sordide albido, sulcis latiusculis exarato, orificio margine reflexo, radiatim inciso, sed non fimbriato, peridii basi contracta et sæpius fasciculis myceliaribus cincta; sporangiolis sordide griseis ovoideis v. globulosis, 2,5 mm. long., 1,5 mm. cr.; sporis 14-18 × 8-10, hyalinis, crasse tunicatis.

Hab. ad terram, Denver Colorado Amer. bor. — Duritiæ et fragilitate peridii dignoscenda species.

NIDULA White l. c. p. 271 (1902) (Etym. *nidus*). — Peridium membranâ homogenea, sed stratosa, initio supra orificium peridii continuâ formatum. Sporangiola copiosissima, initio substantia glutinosâ immersa, dense stipata, cavitatem omnino implentia parieti peridii non adnexa. Sporæ filamentis nullis mixtæ.

1. **Nidula candida** (Peck) White. l. c. *Nidularia candida* Peck — Syll. XI, p. 156.

2. **Nidula microcarpa** Peck ap. White l. c. pag. 272, pl. 17, f. 1-6, 747
pl. 18, f. 14-15. — Peridiis 4-6 mm. alt., 4-5 mm. lat. (apice), 3-5 mm. lat. (basi), subcylindricis, extus albidis v. pallide flavidis, minute tomentosis, firmis, pariete interiore levi, e materie glutinosa exsiccata subnitentibus, orificio integro erecto et firmo; sporangiolis copiosissimis, lenticularibus, striato fibroso crasso dein secedente obtectis, siccis rugosis, udis levibus, rufo-brunneis, 0,5-1 mm. lat.; sporis 6-9 × 4-6, late ellipsoideis v. subglobosis.

Hab. ad ligna et terram in California et Montana (Dudley et Williams) Amer. bor. — Var. **rugispora** (Ell. et Ev.) White l. c. p. 272, pl. 17, f. 7-9: a typo differt orificio dilatato-recurvato et minute fimbriato-lacero; sporis paullo crassioribus 6-9 × 4-7. In ramis emortuis, Skamania Washington Amer. bor. (Suksdorf),

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White The Nidular. of N. Amer. in Bull. Torr. Bot. Cl. 1902. p. 255, est anterius quam *Cyathus* Hall. sed omnino obsoletum dum *Cyathi* nomen a 150 annis est ubique acceptum, adhibitum et usu universali sancitum.

NIDULARIA Fr. — Syll. VII p. 28, IX p. 265, XI pag. 156, XIV p. 256, XVI p. 229.

1. **Nidularia castanea** Ell. et Everh. herb. *Granularia castanea* White l. c. p. 276, pl. 17, f. 17-19, pl. 18, fig. 20 *). — Peridiis minutis, elongato-globosis v. subsphæricis, sessilibus, interdum confluentibus, 0,5-2 mm. latis, 0,5-1 mm. alt.; tunica peridiali tenuissima et fragili, flavido-fulva, demum griseola, ob pressionem sporangiolorum sæpe tuberculosa, irregulariter dehiscente; sporangiolis flavido-brunneis copiosissimis, densis, globoso-depressis, 0,25 mm. diam., sublevibus; sporis subglobosis, hyalinis, crasse tunicatis, 4-7 × 3-6. 748

   Hab. gregatim ad ligna, Newfield N. J. Amer. bor.

2. **Nidularia rudis** Peck ap. White l. c. pag. 277, pl. 17, f. 21-23 (sub Granularia). — Peridiis hemisphæricis v. subglobosis, sessilibus, indehiscentibus v. sensim hinc inde fatiscentibus, tunica tenui, levi, sicca fragili, cellulosa, uda subgelatinosa, flavido-brunnea, ad griseum vergente; sporangiolis paucis, irregularibus, angulosis v. compressis, 2-2,3 mm. diam., nigricantibus v. virentibus sporis late ellipsoideis v. subglobosis, hyalinis, 7-9 × 6-8. 749

   Hab. in lignis putrescentibus, California (W. R. Dudley).

3. **Nidularia Heribaudii** Har. et Pat. Bull. Soc. Mycol. 1904, p. 63. — Peridio globoso, albido, villoso, membranaceo, crassiusculo, 5-6 mm. lato, superne sæpe depresso et rimose dehiscente, intus plumbeo; sporangiis parum numerosis, majusculis, 2-3 mm. reniformibus, v. lentiformibus, glabris, cinereis, levibus, tunica crassiuscula præditis; trama alba, linea hymeniifera obscuriori centro percursa; sporis ovoideis, ad basim attenuatis, 10-11 × 7. 750

   Hab. gregatim in ramis abiegnis pr. Durtol Arverniæ (Héribaud). — Sporangiis magnis, paucis, plumbeis etc. præsertim dignoscitur.

SPHÆROBOLUS Tod. — Syll. VII p. 46.

1. **Sphærobolus dentatus** (With.) W. Sm. in Journ. of Botany 1903, p. 280. Huc ducenda est *Nidularia dentata* With. — Syll. VII, p. 31. — Peridio externe dilute fulvo v. vinoso brunneo v. brun-

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*) Genus *Granularia* Roth in Ust. Ann. bot. I, pag. 6 (1791) a sæculo et amplius omnino obsolevit, dum *Nidulariæ* nomen ubique jugiterque adhibitur et est usu universali sancitum.

neo, interne albo vel eburneo vel albido-griseo; sporangiolis rubello-brunneis 16 μ. diam.

Hab. quoque in Sambuco emortuo, Failand, Somerset Britanniæ.

Dubiæ sedis.

MICHENERA B. et C. — Syll. VI p. 652, XI p. 230.

1. **Michenera Rompelii** Rick, Ann. Mycol. 1904, p. 243. — Erumpens; pezizæformis usque ad 0,8 cm. lata, oblique sessilis, extus straminea, subpruinosa, intus albida; hymenio tumefacto turgido, subgelatinoso, butyraceo; sporis usque ad 20 μ. diam., globosis, endo et exosporio lucem egregie refringente. 751

Hab. in ligno arido St. Leopoldo, Rio grande do Sul Brasiliæ.

Fam. 3. **Lycoperdaceæ** Ehrenb.

SECOTIUM Kunze — Syll. VII p. 51, IX p. 266, XI p. 157, XIV p. 257.

1. **Secotium arizonicum** Shear et Griff. in Bull. of the Torr. Bot. Club. 1902, p. 450. — Peridio subgloboso vel subpiriformi pallide albido-luteo, levi 2-4 cm. alt., 1,5-3 cm. diam., in sicco, constricto fragili, sessili vel raro brevi-stipitato, apice irregulariter dehiscente; columella non bene evoluta; gleba initio lutea, maturitate brunnea, marmorata; sporis sphæricis vel subglobosis, pallide cremeo-albidis, levibus, guttulatis, 8-12 μ. diam., breve pedicellatis. 752

Hab. prope Tucson, Arizona, Amer. bor.

2. **Secotium andinum** Speg. Mycet. argent. ser. II, 1902, p. 55. — Cæspitosum, albo-ochraceum; peridio irregulariter subgloboso 10-35 mm. diam. et alt., levi, glabro, superne obtuso non vel vix umbilicato, inferne non v. modice excavato, subsuberoso-carnoso, primo integro dein irregulariter dehiscente; stipite erecto, subcylindraceo 10-50 mm longo, 6-10 mm. diam., concolore levi vel rugoso-sulcato, glabro; gleba olivacea, compactiuscula ac minute alveolato-spongiosula; sporis ex ovato subsphæroideis, minute rostellatis 15-20 ≈ 12-20, levibus v. obsolete subrugulosis, chlorinis. 753

Hab. ad radices Patagonii pinifolii secus Rio Tupungato prope Mendoza in Argentina. Species magnitudine sporarum ab omnibus adhuc cognitis longe recedens.

3. **Secotium Rodwayi** Massee in Kew Bull. 1901, p. 158. — Peridio 754
2-3 cm. lato, globoso-depresso, tomentoso, ochraceo-albido, inferne profunde excavato; sporis globosis, verruculosis, subhyalinis, plerumque stipitatis 7-8 μ. diam.; stipite brevissimo, primitus infra furfuraceo, cavo.

Hab. ad terram in Tasmania (Rodway).

ELASMOMYCES Cavara — Syll. XIV p. 258.

1. **Elasmomyces krjukowensis** (Buch.) Sacc. et D. Sacc. *Secotium* Bu- 755
cholтz in Ann. Mycol. 1903, p. 159, t. V, Hedw. 1903, pag. 314, Beitr. Hypog. p. 143, t. III, f. 1-10. — Globosus v. irregularis, hypogæus sive erumpens, c. 3 cm. diam., superficie levis, candidus; stipitello in fossula sito et in glebæ columellam producto; columella et excipulo et cellulis sphæricis nidi modo dispositis et ex filamentis contextis compositis; gleba venis tramæ gyrosis, multiloculari, aurantiaca, initio ad basim columellæ aperta sive excipuli margine obtecta, initio ad basim columellæ aperta sive excipuli margine obtecta, dein clausa; hymenii basidiis et cystidiis paucis; basidiis 2-4-sporis; sporis sphæricis, regularibus, 8,7-11,6 μ. diam., spinulosis, dilute ochraceis, jodi ope cærulescentibus; fungi odore dulci.

Hab. sub terra, Station Krjukowo in prov. Mosquensi Rossiæ.

2. **Elasmomyces michailowskjanus** (Buch.) Sacc. et D. Sacc. *Secotium* 756
Bucholtz Ann. Myc. 1903, pag. 171, tab. V, f. 11, Hedw. 1903, p. 314, Beitr. Hypog. p. 143, t. III, f. 11. — Hypogæus, globosus, minor, circ. 1 cm. diam., rufescens, habitu tuberis rufescentis; gleba grisco-ochracea, multiloculata; columella crassiuscula, structura ut in *El. krjukowensi;* hymenii cystidiis acutis; sporis forma et reactione ut in dicta specie.

Hab. sub terra in prov. Mosquensi prope Michalowskoje, in Rossia.

CAULOGLOSSUM Grev. — Syll. VII p. 57.

1. **Cauloglossum transversarium** (Bosc) Fr. — Syll. VII, p. 57, Cl. 757
Johnston in Proceed. Amer. Acad. 1902, p. 70 c. tab., observans quod genus *Cauloglossum* ut plurimum synonymon est *Podaxi,* speciem prædictam novo nomine *Rhopalogasteris* salutat; tamen rectius videtur in gen. *Cauloglosso* char. emend. retinere.

PODAXON (Desv.) Fr. — Syll. VII p. 58, IX p. 267, XI p. 158, XIV p. 257, XVI p. 232.

1. **Podaxon Mülleri** P. Henn. F. Austral. II, p. 187 (Hedw. 1904). 758
— Peridio albido-isabellino, squamoso, basi irregulariter dehiscente, ca. 8 cm. longo, 3 $^1/_2$ cm lato, apice rotundato; stipite cylindraceo, pr. p. membranaceo-squamoso, basi subincrassato, 6-7 cm. longo, 8 mm. crasso, gleba cinereo-olivacea; filis capillitii fasciatis, flexuosis, flavo-brunneis, plerumque 5–10 μ.; sporis ellipsoideis vel subovoideis, apice rotundatis vel subapplanatis, subincrassatis, late brunneis, ca. 10-16 × 10-12.

Hab. ad terram, Gascogne River Australiæ (F. v. Müller). — Ab affini *P. carcinomali* sporis omnino differt.

2. **Podaxon algericum** Pat. Bull. Soc. Mycol. 1904, p. 53, tab. V. — 759
Peridio globuloso 3-4 cm. cr., carnoso-molli, dein membranaceo-rigido, albido, squamis latis, tenuibus subchartaceis, lividis tecto, basi secedendo v. laciniatim dehiscente; stipite rigido, gracili, 5–8 mm. cr., cylindrico, interdum deorsum incrassato, albo, plus minus viridi v. brunneo-maculato, levi v. plicato-striato, costulatoque albo-squamuloso, intus anguste fistuloso, albo, tactu viridi-brunneo-maculato; gleba floccosa, alba dein olivacea v. aurantia; capillitii filamentis hyalinis, simplicibus 6 μ. cr., basidia fasciculato-radiantia ovoidea, 20 × 15, hyalina hinc inde gerentibus; sporis ovoideis v. subglobosis, sessilibus, 10-12 × 9-10, hyalinis, dein olivaceis v. rufis v. aurantiis.

Hab. in sabulosis desertis Saharæ Algeriæ, pluribus locis (Sem, Dydowski). — *P. axato* affine sed minus et gleba aliter colorata.

3. **Podaxon Gollani** P. Henn. F. Indiæ orient. II, in Hedw. 1901, 760
pag. 338. — Peridio obovato, ellipsoideo, membranaceo, alutaceo, squamoso, apice obtuso ca. 3 cm. longo, 2 cm. lato; stipite lignoso, duro, squamoso, fibroso, subtereti, alutaceo, intus cavo, pallido, fibroso, 7-9 cm. longo, 0,8-1 cm. crasso, basi bulboso, usque ad 2 cm. crasso; gleba cremaceo-flavida, farinacea; filis capillitii fasciatis, hyalinis 3-6 μ. cr.; sporis angulato-subglobosis v. ellipsoideis 10-12 × 8-10, hyalino-flavidulis, levibus.

Hab. ad terram, solitarie, Saharanpur-Gardon Indiæ orient.

4. **Podaxon strobilaceum** E. B. Copeland, Ann. Mycol. 1904, pag. 4, 761
fig. 7. — Peridio rufescente squamis crassiusculis rudibus margine inferiore liberis consperso, obconico vel subgloboso, infra libero et profunde in paucas lacinias fisso, 5 cm. lat., 4 cm. alto; gleba 2 cm. alt., vulgo nigra, e filamentis capillitii liberis v. la-

teraliter anastomosantibus, pandulis conflata; sporis maturitate atro-brunneis, levibus, 7 × 6,5, basi apiculatis; stipite 8-10 cm. alto, rufescente v. rubro-tincto, levi, basi fibrosa ad 2 cm. incrassato, glebam, veluti columella, percurrente, carne albida.

Hab. in argillosis v. lutosis Lake co. Californiæ (C. F. Baker). — Præcipue peridii forma distingueretur sed, præeunte cl. P. Hennings, potius *Gyrophragmii* forma videtur.

TYLOSTOMA Pers. — Syll. VII p. 60, IX p. 268, XI p. 159, XIV p. 258, XVI p. 233 *).

1. **Tylostoma kansense** Peck in Bull. Torr. Bot. Club. 1901, p. 430, 762
tab. 32, fig. 9. — Peridio subgloboso 1-2 cm. lato, 1-1,5 cm. alto, compacto, firmo, glabro, albo, interdum basi plano raro ostiolato; ore sublacerato, plano, sæpe subprominenti; annulo 2,5 mm. lato, membranaceo, a stipite distante; stipite æquali, basim versus subconstricto, sæpe abrupte bulboso, 1,5–7 cm. longo, 6-8 mm. crasso, farcto cavo, sæpe sulcato-striato, albo; capillitii floccis raro ramosis 7-11 μ. cr., hyalinis, septis non visis; sporis subglobosis 4-5 μ. diam., brunneo-ferrugineis.

Hab. ad terram, Kansas, Amer. bor. (Bartholomew).

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*) Conferendæ sunt dissertationes sequentes de *Tylostomate* genere: White, *The Thylostomaceæ of North America* (Bull. Torr. Bot. Club, 1901) et L. Petri *Osservazioni sul genere Tylostoma* (Nuovo Giorn. bot. ital., Firenze 1904). Ex hac postrema optima opella sequentem conspectum synopticum specierum principum excerpimus:

Tylostoma Pers.

I. Sporæ leves.

A. Capillitium incolor v. inconstanter et partim coloratum. Filamenta longa vittæformia.

1. Filamenta in articulos vix secedentia, apicibus ochraceis et incrassatis. **T. pulchellum**

2. Filamenta in articulos facile secedentia, apicibus achrois et non incrassatis. **T. Boissieri?**

B. Capillitium constanter bruuneum. — Filamenta brevissima in articulos facile secedentia. **T. obesum**

II. Sporæ verruculosæ v. plus minus echinulatæ.

A. Filamenta brevia et valde sinuosa, extremitatibus parum incrassatis. **T. Vittadinii**

B. Filamenta longa.

1. Filamenta apice quam inferne duplo crassiora. **T. mammosum**

2. Filamenta apice paullo v. vix crassiora.

2. **Tylostoma fibrillosum** White in Bull. Torr. Bot. Club. 1901, p. 433, 763
n. 33, fig. 4-6. — Peridio globoso 1-2 cm. alto, 1-2,5 cm. diam. albido, sublevi, intus membranaceo, basi subrotundato; annulo indistincto adhærente; ore prominulo, fimbriato, rotundato; stipite æquali vel basi subconico, sulcato, firmo. albo, interdum cavo fibrilloso 2 cm. long. vestito basi inflatulo, albido, 5-7 cm. longo, 5 mm. diam.; floccis capillitii albi hyalinis 4-8 μ. crassis, parce septatis, sæpe subinflatis; sporis subglobosis, minute verrucosis, hyalino-isabellinis, breve appendiculatis, 3-5 μ. diam.

Hab. ad terram, Ontario (Dearness), Michigan Americæ bor. (Hicks).

3. **Tylostoma gracile** White in Bull. Torr. Bot. Club 1901, p. 430, 764
tab. 32, fig. 1-3. — Peridio depresso-globoso 1-1,5 cm. alto, 1,5-2 cm. diam., levi, albido, lucenti; ore plano, lacerato; annulo integro, angusto, rotundato; stipite gracili 3-5,5 cm. longo, 6 mm. diam., inferne 3 mm. diam., basi subincrassato, interdum sulcato, lacerato, albido, fibrilloso farcto, dein cavo; capillitii floccis intense ferrugineis 4-6 μ. crassis, apice rotundatis sæpe inflatulis, ramosis, parce septatis; sporis subglobosis 3-5 μ. diam., levibus, brevi pedicellatis.

Hab. ad terram, Las Cruces, New Mexico, Amer. bor. (Wooton).

4. **Tylostoma poculatum** White in Bull. Torr. Bot. Club 1901, p. 431, 765
tab. 34, fig. 4-6. — Peridio globoso, interdum depresso, 1-1,5 cm. alto, 1-2 cm. diam., levi, fulvo, membranaceo, squamuloso, persi-

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a. Filamentorum parietes numquam undulati.
α Filamenta in articulos non secedentia, extremitatibus flavis incrassatis.
— Filamenta breviuscula, sinuosa, membrana parum incrassata. **T. granulosum**
— Filamenta longa, non sinuosa, membrana incrassata. **T. squamosum**
β Filamenta in articulos facile secedentia, extremitatibus non diverse coloratis nec incrassatis.
— Filamenta tota flava **T. campestre**
— Filamenta achroa. **T. fimbriatum**
b. Filamentorum parietes fere constanter undulati.
α Filamenta apice achroa, facile in articulos secedentia.
— Filamenta 4-12,5 μ. cr. **T. cæspitosum**
— Filamenta 4-8,5 μ. cr. **T. Giovanellæ**
β Filamenta apice flava, non secedentia. **T. pusillum**
III. Sporæ reticulatæ. — Filamenta brevia apice plerumque clavata. **T. Leveilleanum**

stenti, ore paullo prominenti, annulo integro, inconspicuo; stipite 1-3 cm. longo, 3-6 mm. crasso, cylindrico, firmo, subbulboso, cavo vel farcto, squamuloso; floccis capillitii luteolis, subramosis, septatis, in ramificatione noduloso-incrassatis, 4-7 μ. crassis; sporis ferrugineis, subglobosis, levibus vel irregulariter rugosis, brevi pedicellatis 4-5 μ. diam.

Hab. ad terram, Nebraska, in Alabama et in Colorado Amer. bor. (Bates, Carver et D. M. Andres).

5. **Tylostoma subfuscum** White in Bull Torr. Bot. Club. 1901, p. 433, 766
tab. 34, fig. 10-12. — Peridio globoso 0,8-1,3 cm. alto, 1-1,5 cm. diam., squamuloso basi levi, subrotundo, intus brunneo; ore prominulo, fimbriato; annulo inconspicuo, adnato; stipite brunneo, sæpe lacerato-squamuloso, laterali, sulcato, basi subbulboso, 2-3 cm. longo, 3-5 mm. diam.; capillitio luteolo e floccis hyalinis, ramosis, filiformibus, longis, 4-6 μ. crassis, apice rotundatis, raro septatis inflatisque composito; sporis subglobosis, minute verrucosis, breve pedicellatis, 3-5 μ. diam.

Hab. ad terram, Colorado Amer. bor. (Bethel).

6. **Tylostoma Vittadinii** Petri N. Giorn. bot. ital. 1904, p. 65 c. ic. 767
T. mammosum Vitt. Mon. Lycop. p. 199, t. II, fig. 4, non Mich. nec Fr. — Endoperidio subgloboso, albicante, non nitido, sicco ochraceo, basi zona granulosa cincto, ore prominente sublacero, margine crasso, duro, tuberculoso-papilloso cincto; stipite recto aut flexuoso, extus rufo-fuligineo, squamuloso-diffracto, striato, farcto v. leviter fistuloso, rigido, basi cortici vestigiis fibrillisque albidis instructo; capillitii hyphis numerosissimis, brevissimis, sinuosis, crasse tunicatis, rotundatis; sporis ochraceo-ferrugineis echinulatis, 4,5-5 μ. diam.

Hab. in aridis sabulosis pr. Milano, Pavia (Vittadini in herb. Sacc.!).

7. **Tylostoma tuberculatum** White in Bull. Torr. Bot. Club. 1901, 768
p. 432, tab. 33, fig. 7-9. — Peridio depresso-globoso, 1-1,2 cm. alto, 1-1,8 cm. diam. levi squamuloso, albido; ore prominulo, fimbriato, rotundato; annulo inconspicuo; stipite filiformi, albido, cavo vel farcto, basi subincrassato, 2-3 cm longo, 3 mm. crasso; floccis capillitii luteolis, hyalinis, ramosis 4-8 μ. crassis, inflatulis, apice rotundatis, latis, raro septatis; sporis subglobosis, fere levibus, raro tuberculato-verrucosis, 3-5 μ. diam.

Hab. ad terram, Colorado, Amer. bor. (Baker) et in Columbia Britannica (Macoun).

8. **Tylostoma mussooriense** P. Henn. F. Indiæ or. II, in Hedw. 1901, p. 337. — Peridio globoso, papyraceo, dense granuloso-verrucoso, ferrugineo, ore submammoso-rotundato, ca. 1 mm. amplo, basi hemisphærico excavato, margine acuto integro ca. 1 cm. diam.; stipite lignoso, fistuloso, duro, fragili, gracili interdum flexuoso ad apicem attenuato ca. 1,5-2 mm. crasso, usque ad 10 cm. longo, fusco, ferrugineo-fibroso v. squamoso, basi usque 2,5-3 mm. cr., late comoso, squamis membranaceis, ferrugineis vestitis; filis capillitii repetito dichotomis, obscurius noduloso-septatis, flavidulis 4-8 μ. cr.; sporis subglobosis, flavo-brunneis, 4 μ. verrucosis. 769

Hab. ad terram, gregatim, Mussoorie, Arnigadh Indiæ orient.

9. **Tylostoma minutum** White in Bull. Torr. Bot. Club. 1901, p. 433, tab. 31, fig. 11-13. — Peridio globoso 0,7-1 cm. alto, 0,7-1,2 cm. diam., brunneolo, levi dein squamuloso; ore plano, fimbriato, levi; annulo integro, indistincto; stipite 1,5-2 cm. longo, superne 3 mm. diam., basi incrassato 5 mm. diam., gracili, cavo, intus fibrilloso; capillitii floccis luteolis, hyalinis, parce ramosis, apice rotundatis, 3-5 μ. crassis; sporis irregulariter globosis, fere levibus, appendiculatis, 3-5 μ. diam. 770

Hab. ad terram, Colorado (Bethel) et in Kansas, Amer. bor. (Kellerman).

10. **Tylostoma albicans** White in Bull. Torr. Bot. Club. 1901, p. 428, tab. 31, fig. 4-7. — Peridio depresso globoso 0,7-1 cm. alto, 1-1,5 cm. diam., levi, albido, dein squamuloso, membranaceo; ore prominulo, brevi, tubulari, integro, annulo irregulari 3-5 mm. a stipite distanti; stipite æquali, basi subincrassatulo, superne lacerato-squamoso, albido, 4-6 cm. longo, 0,5 cm. diam.; capillitii floccis hyalinis, ramosis, septatis, in ramificatione incrassatis, apicibus liberis, rotundatis, 4-6 μ. crassis; sporis rubro-brunneis, irregulariter globosis, appendiculatis, levibus, raro rugosis 4-5 μ. diam. 771

Hab. ad terram, Texas, Amer. bor. (E. D. Cope).

BATTARREOPSIS Henn. in Hedw. 1902, p. (212) (Etym. a *Battarrea*, cui affinis). — Peridium stipitatum; stipes centralis, subcarnosus, fibrosus; volva coriacea, ampla, laciniato-incisa; peridium pileiformi-hemisphæricum, coriaceum; gleba cellulosa, in loculos septis membranaceis sinuosis divisa; capillitium? sparsum; sporæ subglobosæ, subochraceæ.

1. **Battarreopsis Artini** Henn. l. c. cum icone. — Stipite carnoso, sicco subcorneo, fibroso-fusco, flexuoso?, ca. 20-30 × 2-4 cm.; volva 772

coriacea, ampla, laciniato-incisa, ca. 5 cm. longa, 4 cm. lata, basi mycelio radiciformi; peridio subcoriaceo, convexo-hemisphærico, superne dehiscente, ca. 7-10 cm. lato, 3 cm. lato; gleba cellulosa in loculos septis membranaceis divisa; filis capillitii? sparsis, filiformibus, simplicibus vel ramosis vel subfasciatis flexuosis 2-6 μ. cr., subhyalinis vel subochraceis; sporis subglobosis vel ovoideis, interdum angulatis 5-7 μ., episporio subochraceo, granuloso-verrucoso, interdum sporis subglobosis, hyalinis, levibus, 8-12 μ. (immaturis?) intermixtis; basidiis? clavatis.

Hab. in terra asphaltica, dimidio immersa, in Villa Tito-Pascha-Hekekyan, Alexandriæ Ægypti.

BATTARREA Pers. — Syll. VI p. 65, IX p. 270, XIV pag. 259, XVI p. 236.

1. **Battarrea levispora** Massee in Kew Bull. 1901, p. 152. — Peridio 773
globoso depresso, glabro, albido 4-6 cm. lato; gleba croceo-ochracea; stipite undique squamis paleisve tecto, deorsum attenuato 8-12 cm. longo; volva libera, magna, vaginali, limbo lobata, albida; sporis dilute ochraceis, subglobosis, glabris, 6-7 μ. diam.

Hab. ad terram, Poona, prov. Bombay Indiæ brit. (Woodrow). — *Batt. Muelleri* Kalchbr. affinis.

2. **Battarrea laciniata** Underwood apud White in the Torrey Botan. 774
Club. 1901, pag. 439, tab. 36, f. 1-6. — Peridio 5-6 cm. diam., 2-3 cm. alto, levi, membranaceo, convexo, margine tenui, molli, inflexo, portione glebæ vestito, inferne luteo albido; stipite 25-35 cm. longo, lignoso, cavo, fibroso-squamuloso secedente, sublacerato, basi subincrassato 1,5 cm. superne inflato, 2,5 cm. crasso; volva complexa, pluri-stratosa, capillitio albido; floccis hyalinis, indefinitis, irregularibus, interdum fasciculatis; cellulis 30-50 μ. longis, 5-7 μ. crassis, annulato-spiralibus; sporis subglobosis, rufo-brunneis, 5-7 μ. diam., fere levibus.

Hab. in Mesilla Park, New Mexico (Cockerell).

3. **Battarrea Griffithsii** Underwood apud White in the Torr. bot. 775
Club. 1901, p, 440, tab. 37, fig. 1-6. — Peridio 2-3,5 cm. diam., 1-2 cm. alto, levi, membranaceo, inferne plano, distincte dehiscente; stipite cavo, æquali 1-1,5 cm. diam., 9,5-15 cm. longo, sulcato, fibrilloso; volva facile evanescente, e squamulis obtusis, fibrillosis composita; capillitii floccis 4-10 μ. crassis, albidis, subapplanatis, irregularibus, ramosis; cellulis 24-85 × 6-8 annulato-

spiralibus; sporis subglobosis, minute verrucosis, fere levibus, rufo-cinnamomeis 4-5 μ. diam.

Hab. ad terram in Arizona Amer. bor. (D. GRIFFITHS).

4. **Battarrea arenicola** E. B. Copeland, Ann. Mycol. 1904, p. 2, f. 6. 776
— Peridio 4-5 cm. lato, applanato v. late campanulato, brunneo, centrum versus pallidiore, area centrali plicato-tuberculata, sæpe arena v. fragmentis variis obruta, margine varie flexo et subfimbriato; filamentorum capillitii fasciculis e peridii superf. inter. dependentibus, filamentis paucis annulatis, 3,5-5 μ. cr.; sporis globosis, sublevibus, 3-8-5 μ. diam. atro-brunneis, coacervatis nigris; stipite subepigæo v. ad medium hypogæo, 12-15 cm. longo, 8-15 mm. cr., levi, albido, sed sæpe fœdato, carne alba, vetusto corrugato-squamoso, ligneo, cremeo-brunneo; volva persistente tubulosa, irregulariter laciniata.

Hab. in sabulosis, Antioch et S. Francisco Californiæ (C. F. BAKER). — An, præeunte cl. Hennings, = *Montagnites*?

5. **Battarrea Franciscana** E. B. Copeland, Ann. Mycol. 1904, p. 3. 777
— A *B. phalloide* præsertim differt squamis latis liberis ad stipitem deficientibus, hujus contextu minus ligneo, peridii parte inferiore molliore; sporis rugulosis 4-4,5 μ. diam.; capillitii filamentis subinde 4,5 μ. diam., spira irregulari præditis; odore typico nullo.

Hab. ad terram, Arizona et Texas Amer. bor. (PALMER).

MITREMYCES Nees. — Syll. VII p. 68. IX p. 270, XI p. 162.

1. **Mitremyces microsporus** (Atkins.) Sacc. et D. Sacc. *Calostoma* 778
Atkinson in Journ. of Mycol. 1903, pag. 17. — Peridio ovoideo 10-15 mm. lato, ore 5-7-dentato, prominenti, intus cinnabarino; exoperidio in verrucas numerosas, minutas, duriusculas diffracto; partem mediam et inferiorem endoperidii obtegente, vulgo omnino secedente et aream levem circa ostiolum endoperidii relinquente; sporis oblongis, rarius ellipsoideis, albis, levibus, 6-10 × 3,5-5 5, plasmate granuloso subinde medio diviso; stipiti cylindraceo vel ventricoso, subinde compresso 3 6 cm. alto, 1-2 cm. crasso.

Hab. ad terram, Rugby Tennssee, Amer. bor. (PERCIVAL).

2. **Mitremyces japonicus** (P. Henn.) Sacc. et D. Sacc. *Calostoma* P. 779
Henn. Fg. japonici IV, in Bot. Jahrbücher vol. XXXI, 1902, p. 738. — Exoperidio subgloboso v. ovoideo, cinereo-fuscidulo ca. 5-8 mm. diam., squamis crassis, verrucosis, fuscis peridii extremi vestito, dein nudo, subareolato, brevi v. obsolete stipitato; stipite e fibris crassis, tortis, cartilagineis in sicco corneis, ferrugineis con-

sistente, ca. 2-5 mm. longo crassoque; osculo vix coronato dentibus 4-5, sæpe basi laciniato-partitis, margine cinnabarinis, dehiscenti; endoperidio membranaceo, subgloboso, 3-5 mm. diam., cremeo, glabro; floccis ramosis, hyalinis 1-2 μ. cr.; sporis ellipsoideis, hyalino-flavidulis, 8-13 × 6-8, episporio sublevi v. granuloso.

Hab. ad terram, Nagasaki et Izu Japoniæ.

GEASTER Mich. — Syll. VII p. 70, IX p. 271, XI p. 162, XIV p. 260, XVI p. 237.

1. **Geaster Dybowskii** Pat. Bull. Soc. Mycol. 1902, p. 300. — Exoperidio 4-5 cm. diam., globuloso, usque ad medium 5-8-fido, laciniis membranaceis, cuneiformibus intus levibus, nigrescentibus, sæpe rimosis, extus lateritiis, tomentoso-verrucosis; endoperidio globoso, levi, glabro, papyraceo, sessili, pallide umbrino, peristomio conico, atro, pectinato-sulcato, rima circulari circumscripto; gleba atro-brunnea; columella capitata; capillitio ex hyphis rufo-brunneis 3-7 μ. crassis, composito; sporis in cumulo atris, sub lente brunneis, globosis, asperulis, 4-5 μ. lat.; mycelio superficiali, filamentoso, copioso, albo. 780

Hab. ad ligna putrescentia, Oubangui (Dyboswki). — *G. javanico* Lév. affinis.

2. **Geaster Giacomellianus** Speg. Myc. argent. ser. II, 1902, p. 56. — Exareolatus; exoperidio 4-5-partito subgloboso 20-25 mm. diam., extus albido-cinerescente, tenui-subpapyraceo, laciniis subtriangularibus, intus umbrino; endoperidio globoso, 18-22 mm. diam., umbrino, sessili, glabro, tenuiter chartaceo rigidulo, ostiolo minuto denticulato dehiscente; gleba fuligineo-nigra pulverulenta; sporis globosis, parvis, grosse laxeque papillatis, 4-5 μ. diam., fuligineis. 781

Hab. in pratis aridis, Aimonacid et Cochaugasta, La Rioja in Argentina (A. Giacomelli). — Species *G. platensi* Speg. valde affinis, sed tamen distincta.

3. **Geaster Lloydii** Bres. et Pat. in Lloyd. Mycol. Not. n. 6, 1901, p. 50. — Exoperidio membranaceo, 4-6-fido, revoluto, intus brunneo, levi, extus luride alutaceo, tomentoso-villoso, tomento ex hyphis tortuoso-intricatis crasse tunicatis, more *Hirneolæ polytrichæ* conflato, basi mycelio copioso radiciformi albo prædito; laciniis obovatis infra medium partitis; endoperidio globoso-obovato, papyraceo, sessili, avellaneo-umbrino; peristomio indeterminato, piloso-fimbriato; capillitio brunneo-fusco, ex hyphis 3-8 μ. cr. con- 782

flato; columella clavata v. clavato-subcapitata; sporis globosis, levibus, flavis, episporio crasso fusco, 3-4 μ. diam.

Hab. ad terram in insula Samoa. — Exoperidio tomentoso a ceteris speciebus (nisi *G. velutino* parum noto) optime distincta.

4. **Geaster pseudolimbatus** Hollós in Matem. es Termeszett. Ertesito, 783
Budapest 1901, p. 507. — Exoperidio in 6-8 lacinias inæquales acutas ad basim partito, rigido, coriaceo, subfornicato, intus atro-brunneo-purpurascente mox griseo, pedicellato, subtus apophysato; peristomio ciliato-sericeo, circulis pallescentibus cincto vel indeterminato; columella basi latiuscula, usque ad medium endoperidium excurrente; gleba umbrino-purpurea; capillitio e filis simplicibus brunneis 6-7 μ. cr.; sporis globosis, atro-brunneis, episporio dense verrucoso, 5-6 μ. diam.

Hab. in Hungaria. — Endoperidium 1-2 cm. latum; exoperidium expansum ad 3-4 cm. raro 7 cm. diam.

5. **Geaster hungaricus** Hollós in Matem. es Termeszett. Ertesito, Bu- 784
dapest 1901, p. 506. — Exoperidio in 5-10 plerumque in 7 lacinias acutas ad basim partito, hygrometrico, siccitate arcte involuto, extus niveo, intus ochraceo, mox brunneo; endoperidio subgloboso, cinereo v. castaneo, sessili, levi, subfurfuraceo; peristomio plano-conico, ciliato-fimbriato, rima circulari marginali circumspecto; columella longa sed exemplaribus parvis obsoleta; gleba cinerea; capillitio flavidulo, subhyalino, e filis simplicibus 2-4 μ. crassis; sporis globosis, flavo-brunneis, uni-guttulatis, verruculosis, 4-6 μ. diam., plerumque breviter pedicellatis.

Hab. in Hungaria. — *Geasterum* minimus est. Endoperidium 2-5 mm. latum; exoperidium explanatum circ. 10 mm. metiens. Nonnunquam fungus siccus involutus non amplius ac 2-3 mm. est.

6. **Geaster pseudostriatus** Hollós in Matem. es Termeszett. Ertesito, 785
Budapest 1901, pag. 505. — Exoperidio 7-8-fido, crasso, rigido, intus levi, brunneo, rimoso, basi integra subfornicata; laciniis acuminatis explanatis, non hygrometricis; endoperidio subgloboso, depresso, griseo-brunneo, dense verrucoso, scabro, flavo-pedicellato, subtus apophysato; peristomio orbiculo marginato, sulcato plicato; columella parva, subglobosa, ultra medium exoperidium non excurrente; gleba brunnea; capillitio flavo-brunneo, floccoso, e filis simplicibus 6 μ. cr. versus apicem attenuatis; sporis globosis, brunneis, 5-6 μ. diam., episporio dense verrucoso.

Hab. in Hungaria. — Endoperidium 1-1,5 cm. lat., diametrum exoperidii expansi usque ad 5-6 cm.

7. **Geaster Englerianus** P. Henn. Engl. bot. Jahrb. XIV, 1891, p. 361, 786
t. VI, f. 8. — Syll. XI, pag. 162. — var. **lignicola** P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — Exoperidio coriaceo, 5–7-fido explanato, laciniis triangularibus rigidis, intus strato ceraceo atro-castaneo rimoso, 1½-2 cm. explanato; endoperidio sessili subgloboso depresso, papyraceo, atro-fusco, ca. 1 cm. diam. levi, peristomio fimbriato, azono; capillitio atro, floccis 3-6 μ. crassis, fusco-castaneis; sporis globosis, verrucosis, atro-castaneis, 3–3½ μ.

Hab. in fragmentis ligneis putridis, Birco do Tejo, Juruá sup. Amazoniæ (Ule). — A typo sporis paullo majoribus et habitatione differt. Ad *G. Englerianum*, teste cl. Lloyd, spectat *G. maurus* Massee (1899) posterior.

8. **Geaster leptospermus** Atk. et Coker Bot. Gaz. 1903, Oct. p. 306, 787
c. icon. — Solitarius v. gregarius ovoideo-globosus; peridio 3-4.5 mm. diam., exoperidio matrici filamentis mycelii arcte fixo, radiatim in 3-4 lacinias diviso; laciniis in strata duo facile separatis, apice tamen coalitis, superficie interiore minute granulosa alba v. carneo-tincta; endoperidio sessili v. brevissime pedicellato, 2,5–3,5 mm. diam., globoso, ore definito, fibrillis sericeis prædito (nec sulcato, nec striato), pallide alutaceo, circa ostiolum albo; capillitio copioso pallido v. flavido-brunneo, filamentis 2-6 μ. cr., rectis v. flexuosis, simplicibus v. ramosis; sporis perexiguis e globoso angulosis, levibus, 1,5–2,5 μ. diam., e pallido flavido-brunneis.

Hab. inter muscos ad cortices Juniperi virginianæ, Caryæ, Ulmi, Chapel Hill N. Carolina Amer. bor. (Coker).

Subgen. Mycetiostroma P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — Mycelium stromaticum late effusum.

9. **Geaster juruensis** P. Henn. F. Amaz. I, p. 185 (Hedw. 1904). — 788
Terrestris, mycelio effuso, membranaceo-coriaceo, albido; peridio stipitato primo piriformi, apice umbonato, alutaceo, coriaceo ruguloso, 2–2½ cm. alto, 1½-2 cm. lato; stipite usque ad 1 cm. longo, 5 cm. crasso, exoperidio irregulariter ad medium paucifido, laciniis ca. 5 triangularibus; endoperidio subgloboso, cinereo, sessili, papyraceo, levi, disco plano, peristomio conico, fimbriato, columella subclavata, gleba atra, filis capillitii flexuosis, brunneis, utrinque attenuatis, ca. 3-4 μ. crassis; sporis globosis, atro-castaneis, granulato-verrucosis, ca. 2–2½ μ.

Hab. ad terram silvaticam, Rio Juruá, Bom Fim Amazoniæ

(Ule). — *G. stipitato* et *G. mirabili* affinis et præcipue stromate mycelico late effuso (subgenus novum præbente) distinguitur. A *Geast. stipitato* etiam sporis dimidio minoribus dignoscitur.

GEASTEROPSIS Hollós Külön. Növenyt. Közl. 1903, II, 2 (Etym. *Geaster,* cui affine genus). — Exoperidium crassum, rigidum, in lacinias irregulares dehiscens, centro stilum sublignosum gerens; stilo obconico dilatato, columellam subrotundam formante. Similis *Geasteri,* at endoperidio secedente et columella sublignosa obturbinata distinguitur.

1. **Geasteropsis Conrathi** Hollós l. c. cum ic. — Exoperidio crasso, 789
duro, rigido, coriaceo, subhygrometrico, extus ochraceo, brunneo et albo variegato, rimis longitudinalibus, intus umbrino, rimoso, in decem inæquales curvatas lacinias fisso, in centro stilum latum, durum gerente; stilo obconico-dilatato et sublignoso, subrotundam columellam formante; endoperidio albello, molli, flexibili, cum gleba omnino secedente; gleba umbrina; sporis globosis, umbrinis, densis, verrucosis, sessilibus vel breve pedicellatis, 1-grosse guttulatis, 6 nonnumquam 8 μ. diam.; capillitio subhyalino, dilute umbrino, non vel raro ramoso, nonnumquam septato, 4 μ. diam.; exoperidio expanso usque ad 10 cm., columella prope 3 cm. lata.

Hab. ad terram graniticam prope Johannesburg Africæ merid. (Conrath). — Similis *Geasteri,* quia exoperidium in lacinias finditur, endoperidium autem non peristomio aperitur, sed omnino sejungitur et tunc sublignosa columella cum exoperidio remanet.

DIPLODERMA Link — Syll. VII p. 92, IX p. 273, XI p. 163.

1. **Diploderma glaucum** Cooke et Massee. — Syll. VII, pag. 93. — Quoad hanc speciem cfr. Hollós in Külön. Növeny. Közl. 1902, I, 4 cum icone; qui pro ea genus *Potoromyces* F. Müll. in herb. Sacc. admittit.

LYCOPERDON Tourn. — Syll. VII p. 106, IX p. 275, XI p. 165, XIV p. 263, XVI p. 241.

1. **Lycoperdon favosum** Oud. Bot. Centr. 1902, Beil. p. 4 (extr.). — 790
Altum ad 12 cm., umbrinum; peridio subgloboso, 3 cent. diam., papyraceo, fragili, summo tandem varie lacerato-dehiscente, granulis minimis, partim muticis, partim mucronatis, dense et inæqualiter vestito, ætate provecta levissimo, deorsum interruptione tantum superficiali intercessa in stipitem paullo tenuiorem abeunte;

stipite cylindrico, per totam superficiem impressionibus fere contiguis 4-6-gonis, amplitudinis 3-7 mm., p. m. micantibus verrucisque una v. pluribus, primo spiniferis, denique calvis ornatis, obsesso, ceterum pulvere furfuracea consperso; glebula flocculoso-gossypina, pulvere farcta, dilute umbrina; floccis tenellis, gracillibus 2-3 μ. cr., parce ramulosis, continuis vel parcissime septatis, avellaneis; sporis globosis 4,5-5 μ. diam. minutissime asperulis, saturate avellaneis.

Hab. ad terram, Valkenberg Hollandiæ.

2. **Lycoperdon tasmanicum** Massee in Kew Bull. 1901, p. 158. — 791
Peridio obovato, membranaceo, sordide ochraceo, verrucis pyramidatis demum deciduis ornato, basi fibrillis longis repentibus radicante, 3-6 cm. alto, basi sterili distincta; gleba dilute brunnea; hyphis capillitii subhyalinis, ramosis; sporis globosis olivaceo-brunneis, verruculosis, 4 μ. diam.

Hab. ad terram in Tasmania (Rodway).

3. **Lycoperdon erinaceum** Speg. Myc. argent. ser. II, 1902, p. 56. — 792
Candidum; peridio subhemisphærico, superne rotundato, inferne subapplanato 40 mm. diam., 32 mm. alt., cortice duplici, externo verrucis magnis pyramidatis 2,5-3,5 × 1,5-2 mm., confertis subpersistentibus ornatis, interno subpapyraceo; stipite obconico 25 × 15-18 mm. terra ad medium usque infosso, subsuberoso extus levi, albo, intus latissime fistuloso-vacuo a cavitate peridii septo transverso rigidulo, separato; glena grumoso-subpulverulenta ochracea, floccis nullis sed nodulis minutissimis proliferis difformibus 30-50 μ. diam. donata; sporis globosis, levibus, an minutissime subrugulosis, non rostellatis 6-8 μ. diam., subcrassiuscule tunicatis, grosse 1-guttulatis, subhyalinis.

Hab. in pratis sabulosis, prope Posadas, Misiones in Argentina (E. Kermes). — Species pulcherrima distinctissima habitu *Calodermati* accedens.

4. **Lycoperdon atrum** Pat. Champ. de la Guadeloupe, ser. III, in 793
Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Peridio piriformi vel turbinato, supra rotundato, deorsum sensim stipitiformi attenuato, basi in mycelium fibrillosum terminato, papyraceo (in sicco), flavido, vertice ostiolo minuto irregulari dehiscente, verrucis minutissimis, confertis, granuliformibus, detersilibus, crustam nigram in tota parte peridii inflata et rufam ad stipitem formantibus; parte sterili glebæ fulvo-pallida sericea, cellulis obsoletis, stipitem quoque occupante; parte fertili fulva vel fulvo-

brunnea plus minus rubescente, floccoso-pulveracea; capillitii filamentis rufis 3-5 μ. crassis, longissimis, ramulosis, apicibus cuspidatis; sporis globulosis, levibus, ochraceis, 4-5 μ. diam. exappendiculatis vel hilo brevissimo præditis.

Hab. ad terram in Martinica et Guadalupa (Duss). — Peridium 3-4 cm. altum, velo nigro et gleba fulvo-rubescente distinctum. Columella nulla.

5. **Lycoperdon endotephrum** Pat. Bull. Soc. Mycol. 1902, pag. 300, 794
t. XIV, f. 3. — Pileo sursum convexo, hemisphærico, tenui albido-ochraceo, 2-4 cm. lato, 15-25 mm. alto, apice osculo irregulariter aperto, cortice adnato, verrucoso, verrucis minutis, aculeiformibus, stellatim apice confluentibus, deorsum breviter obconico, plicato rugoso, glabriusculo; basi sterili parum evoluta, albida, tenuissime cellulosa, persistenti; gleba floccoso-pulveracea, sordide violascenti; capillitio adnato ex hyphis hyalinis 3-7 μ. crassis simplicibus vel ramosis composito; sporis sub lente fuscidulis, minute verrucosis, subglobosis vel globoso-ellipticis 3,5-4,5 μ. diam., hilo brevissimo donatis.

Hab. ad terram in Madagascar.

6. **Lycoperdon pseudoradicans** Lloyd Mycol. Not. n. 9, p. 84, c. ic. 795
(1902). — Peridio globoso, basi contracto et in processum radiciformem longum (basim sterilem) producto; cortice persistente, tenui, spinulis brevibus quaternatis et apicem versus convergentibus consperso; columella lata prominenti; sporis coacervatis olivaceo-brunneis, minutis, globulosis, minute asperulis, apiculatis, 4 μ. diam.; filamentis 4-8 μ. cr.

Hab. inter muscos præcipue Leucobryum, Washington Amer. bor. (F. J. Braendle). — *L. pratensi* et *L. piriformi* affine, sed notis datis satis differt.

7. **Lycoperdon pseudoumbrinum** Hollós Külön. Noveny. Közl. 1903, 796
II, 2 cum ic. — Peridio globoso, 1-1,5 cm. lato, sessili, sordide ochraceo vel rufidulo, subtiliter furfuraceo vel aculeis parvis convergentibus obsesso, basi ramoso; basi sterili obsoleta vel nonnumquam distincta; gleba olivacea; columella centrali; capillitiis flavidulis vel brunneis, sporarum diametro æqualibus, sparsis, ramosis; sporis globosis, flavidulis, 1-guttulatis, verrucosis 4-5 μ. diam., 4-26 μ. longe pedicellatis.

Hab. ad terram in Carolina meridionali. — *Lyc. umbrino* simile, sed pedicello sporarum permanente vel raro secedente.

8. **Lycoperdon juruense** P. Henn. F. Amaz. I, p. 184 (Hedw. 1904) 797

— Peridio piriformi, stipitato, membranaceo-subcoriaceo dense atro-fusco granulato vel squamosulo, 3-5 cm. longo, 2-3 cm. lato, stipite farcto, sterili, spongioso; gleba cinereo-subviolacea; filis capillitii flavo-fuscidulis, 2-3 μ. crassis; sporis globosis, dense verrucosis, atro-castaneis, 3-3½ μ., pedicello usque ad 12 × 1, hyalino-fuscidulo.

Hab. ad terram silvaticam, Rio Juruá, Juruá-Miry Amazoniæ Ule. — Habitu *L. piriformi* accedit; sporis longe pediceliatis mox dignoscitur.

9. **Lycoperdon hungaricum** Hollós in Matem. es Termeszett. Ertesito, 798
Budapest 1901, p. 510. — Peridiis subglobosis vel depressis, flavo-brunneis, rufidulis, granulis pallidis parvulis tectis, sessilibus, subtus plicatis; basi sterili parum distincta, parva; gleba olivaceo-viridi; floccis non ramosis, simplicibus, fragilissimis, flavidis, sporarum diametro æquali vel magis tenui; sporis globosis, verrucosis, flavidulis uniguttulatis, breviter pedicellatis, 4-5 μ. diam.

Hab. ad terram in Hungaria. — A *Lyc. colorato* sporis capillitiisque præcipue differt.

10. **Lycoperdon pseudocepæforme** Hollós in Matem. es Termeszett. 799
Ertesito. Budapest 1901, p. 511. — Peridiis late ovoideis, subglobosis, subtus plicatis, breve stipitatis, mollibus, ochraceis, rufidulis 1,5 cm. latis; squamis atris; basi sterili obsoleta; columella centrali; capillitio ramoso, flavo, 4 μ. diam.; sporis globosis, interdum complanatis 4-5 μ. diam., flavis, pediceliatis v. sessilibus; pedicellis plerumque longis, deformatis, flavis.

Hab. ad terram in Hungaria. — A *Lycop. cepæformi* sporis præcipue distinctum.

11. **Lycoperdon djurense** P. Henn. in Hedw. 1901, p. 100. — Syll. 800
XVI. pag. 1117 (nomen). — Peridio subgloboso v. ovoideo, basi sulcata, farinaceo-granulosa, brevi radicata attenuato, extus verrucis subconoideis, polyhedricis v. sulcatis pallidis exasperato, dein areolato, flavo-brunneo, ore rotundato, 0,8-20 mm. diam.; gleba pallide umbrina, basi sterili, pallida, favosa; filis capillitii paullum ramosis, hyalino-flavidulis 3,5-4,5 μ. cr.; sporis globosis flavo-fuscidulis, minute verrucosis, 3,5-4.

Hab. ad terram, Djur Afr. centr.

12. **Lycoperdon pseudopusillum** Hollós Külön. Növeny. Közl. 1903, 801
II. 2 c. icone. — Peridio globoso, tenui, molli, estipitato, sessili, sordide ochraceo, subtiliter furfuraceo 5-8 cm. lato, subtus cum mycelio radicante; basi sterili obsoleta; gleba olivacea; capillitio

flavidulo, sporarum diametro æquali, sparso, ramoso; sporis globosis, flavidulis, subtiliter verrucosis, uniguttulatis, sessilibus vel breviter pedicellatis, 4-5 μ. diam.

Hab. in Hungaria, Florida et Transylvania. — A *Lyc. pusillo* sporis verrucosis distinctum.

13. **Lycoperdon samoënse** Bres. et Pat. in Lloyd Myc. Not. n. 6, 802
1901, pag. 50. — *Globaria.* Peridio sessili v. subradicato, basi fibrillis mycelialibus, albis, copiosis prædito, utriformi v. obovoideo, apice ore lacerato irregulari dehiscente; cortice externo purpuraceo, umbrino, granulis parvis, sæpe pyramidatis, demum deciduis, dense obsito; cortice interno papyraceo, pallide alutaceo; gleba matura olivaceo-fusca, basi sterili nulla; capillitio laxo, ex hyphis subhyalinis, 3-5 μ. cr. conflato; sporis globosis levibus, fulvis, nucleis flavidis, 3-3,5 μ. diam.

14. **Lycoperdon acuminatum** Berk. — Sacc. Syll. XI, pag. 166. — 803
var. **Seurati** Patouill., Bull. Soc. Mycol. 1904, p. 134. — Minutissimum 4-6 mm. altum, ovoideo-acuminatum; peridio albido dein ochraceo, verrucis conicis longitudinaliter striatis tecto; gleba olivacea pulverulenta; basi sterili nulla; capillitio raro ex hyphis pallide olivaceis longissimis, parce ramosis, 3-6 μ. cr. composito; sporis globosis, levibus 3 μ. lat. concoloribus.

Hab. ad truncos Artocarpi inter muscos in insulis Gambier (Seurat). — A typo differt peridio dimidio minore, sporis quoque minoribus etc.

15. **Lycoperdon piriforme** Schaeff. — Syll. VII, p. 117. — Citetur *Schaeff.* tab. 185, nec tab. 189 quæ *L. cælatum* spectat.

DISCISEDA Czern. — Syll. VII p. 92. — De hoc genere complectente pro parte species plures *Catastomæ, Bovistæ, Globarice* in Syll. Fung., cfr. dispositionem reformatam cl. L. Hollós in Hedw. 1903, p. 120.

1. **Disciseda Hollosiana** P. Henn. in Hedw. 1902, p. (62). — Peridio 804
depresso-globoso, exoperidio fragili evanescente, endoperidio superne levi, glabro, atro-castaneo v. griseo pruinoso, inferne circumscisso, ruguloso, pallide fusco, ca. 3 cm. diam., intus floccoso, olivaceo; floccis capillitii longis, ramosis vel simplicibus, flexuosis, flavido-olivaceis ca. 3-5 μ. cr.; sporis globosis, atro-castaneis, granulato-verrucosis, 9-12, pedicello persistenti usque ad 30 μ. longo, 2-2,5 μ. crasso, fuscidulo.

Hab. ad terram, Mexico? (C. Ehrenberg).

BOVISTA Dill. — Syll. VII p. 96, IX p. 273, XI pag. 164, XIV p. 261, XVI p. 240. — Cfr. notam ad *Discisedam*.

1. **Bovista hungarica** Hollós in Matem. es Termeszett Ertesito, Budapest 1901, p. 512. — Peridiis sessilibus, compressis v. depressis, cavernosis, cinereis, nitidis, levibus, papyraceis, superne irregulariter ostiolato-perforatis, 3-4,5 cm. diam.; gleba castaneo-purpurea, tota fertili, absque basi sterili; floccis levibus, ramulosis, atrobrunneis 16-20 μ. diam.; sporis globosis umbrinis, levibus 5-6 μ. diam., pedicellatis, episporio crassiuscule et excentrice 1-grosse-guttulato. 805

   Hab. ad terram in Hungaria.

2. **Bovista Stuckerti** Speg. Myc. argent. ser. II, pag. 56 (1902). — Peridio 20-25 mm. diam., superne rotundato, inferne subturbinatulo non plicato, latiuscule terra adnato, tenui, papyraceo, levissimo, glabro, sordide atro-violaceo; ostiolo subrotundo dehiscente 1-4 mm. diam.; gleba subcompactiuscula avellanea; floccis ramosis crebre flexuosis 3-4 μ. crassis, olivascentibus; sporis sphæroideis ecaudatis, muriculatis, dense papillatis, eguttulatis 8-10 μ. diam. fusco-subolivaceis. 806

   Hab. in pratis secus Rio Primero prope Cordoba, in Argentina (T. Stuckert).

3. **Bovista dealbata** (Lloyd) Sacc. et D. Sacc. *Bovistella dealbata* Lloyd Mycol. Not. n. 9, p. 86, c. ic. (1902). — Peridio globoso, tenui, poro minuto definito dehiscente; exoperidio tenuissimo, albo, adnato, minuto-furfuraceo, primitus in areas diffracto, dein evanescente, basi sterili nulla; gleba brunnea; capillitio filamentis tenuibus, vage ramosis; sporis globosis levibus, 4 μ. diam., pedicello usque 12 μ. longo instructis. 807

   Hab. in pascuis siccis pr. Rockland Washington Amer. bor. (Suksdorf). — Specimina majora 1 cm. metiuntur. Affinis *Bov. plumbeæ*.

CALVATIA Fr. — Syll. VII p. 105, XIV p. 262.

1. **Calvatia hungarica** Hollós in Matem. es Termeszett. Ertesito, Budapest 1901, p. 510. — Peridio globoso depresso, ovoideo, sessili, subtiliter furfuraceo, dilute umbrino, cum maculis rufis, basi plicata; apice fragilissimo, in lacinulas erupto demumque ex toto evanido; basi sterili parvo convexa, cellulari; gleba flavida, olivacea; capillitio pallide lutescente, ramoso, in loco ramificationis triangulum crassum formante; sporis sphæroideis, levibus, dilute 808

luteis, brevissime pedunculatis 1-grosse guttulatis, 4-6 μ. diam.

Hab. ad terram in Hungaria. — Peridium 9 cm. latum, 6,5 cm. altum, aliquo modo *Solani tuberosi* simile est.

2. **Calvatia Diguetii** Har. et Pat., Bull. Soc. Mycol. 1904, p. 64. — 809
Globoso-depressa, 4-6 cm. lata, inferne subapplanata, c. 2 cm. alta, brevissime radicata, velo ochraceo, tenui, sub lente furfuraceo; peridio glabro, ochraceo-fulvo, vix 1 mm. cr., rigido, irregulariter parte superiori frustulatim dehiscenti; basi sterili nulla; gleba gossypina, ochracea; capillitio fragili ex hyphis ochraceis 3-6 μ. latis, ramosis composito; sporis subglobosis, levibus, 3-4 latis, hilo brevissimo donatis.

Hab. ad terram arenosam in California littorali (Diguet). — Basi sterili nulla, velo et colore distinguenda.

3. **Calvatia tatrensis** Hollós in Matem. es Termeszett. Ertesito, Bu- 810
dapest 1901, pag. 508. — Peridio globoso, tenui, molli, collabascente, primo pallide, mox sordide ochraceo, dilute umbrino; aculeis parvis convergentibus obsesso; stipite brevi, subtus plicato; margine oris magni serrato; basi sterili molli, cellulari, purpurascente et communiter parva; gleba olivacea, mox umbrina; capillitio cylindrico, septato, rigido, fragilissimo, in extrema parte subito in conum transeunte, 5-6 μ. diam.; sporis sphæroideis estipitatis v. brevissime pedunculatis 1-guttulatis, episporio dense verrucoso 5-6 μ. diam., flavo-brunneis.

Hab. ad terram in Hungaria. — Peridium 3-5 cm. latum, maturum calvescens, partim leve et nitidum fit, partim autem aculeos parvos servat.

SCLERODERMA Horn. — Syll. VII p. 134, IX p. 278, XI p. 167, XIV p. 266, XVI p. 244.

1. **Scleroderma hemisphæricum** B. Lázaro in Bol. Soc. españ. de Hist. 811
Nat. Madrid, 1902, p. 158, t. IV (absque diagnosi). — Peridio initio globoso, mox basi applanato-concavo, tunc depresse hemisphærico, 3-6 cm. diam., flavido, squamis adpressis griseis consperso; gleba e flavo grisea demum pulverulenta, griseo-virente; mycelio e rhizoidibus dense fasciculatis formato; sporis filamentis capillitii brevibus et crassis intermixtis, (mensuræ desiderantur).

Hab. inter muscos in Asturiis Hispaniæ. — *Scl. vulgari* affine.

2. **Scleroderma verrucosum** (Bull.) Pers. — Syll. VII, pag. 136. — 812
var. **maculatum** Peck Rep. of the State Bot. 1899, p. 848, tab. *B*, f. 8-12. — Subsessile, globosum vel depresso-globosum, 2,5-7,5 cm.

diam.; peridio crasso, firmo, brunneo, squamulis minutis intense brunneis vestito, in parte superiore facile evanescentibus et maculas pallide luteolas relinquentibus; sporis in massa nigrescentibus, globosis, verrucosis 15-17,5 μ. diam.; cellulis capillitii luteo-brunneis.

Hab. ad terram in silvis, Rosendale, Amer. bor.

3. **Scleroderma Pteridis** Shear in Bull. of the Torr. bot. club. 1902 813
p. 451. — Peridio globoso vel depresso-globoso, sessili, sordide albo vel subluteo, irregulariter squamoso, fibroso-radicato, 3-6 cm. diam.; cortice 3-8 mm. cr.; gleba firma, interdum indistincte areolata, rubro-brunnea; columella nulla; sporis irregulariter globosis rubro-brunneis, rugoso-asperulis, 6-8 μ. diam.

Hab. in rhizomatibus Pteridis aquilinæ, Amer. bor.

4. **Scleroderma Torrendii** Bres. Myc. Lusitanici novi in Atti R. Acc 814
di Sc. Lett. ed Arti degli Agiati in Roveredo vol. VIII, 1902, p. 132. — Peridio subgloboso, basi radicato, 2-5 cm. diam., fusco-purpureo, primitus levi, dein areolato-rimoso, areolis fusco-purpureis, interstitiis alutaceis, cute 1-1,5 mm. crassa, irregulariter rupta, substantia fracta rubescente; radice brevi, intus lutea, extus fibris mycelialibus copiosis, albis prædita; gleba juvenili compacta, atro-purpurea, venis albis marmorata, dein matura pulveracea, griseo-purpurea, floccis lutescentibus; sporis globosis, atro-purpureis, aculeatis, 12-15 μ. diam.; basidiis obverse piriformibus mox absorptis; hyphis capillitii subhyalinis, septatis 3-6 μ. latis, ad septa hinc inde inflatis.

Hab. ad terram sub Fico Carica pr. Setubal Lusitaniæ. — *Sclerodermati Bovistæ* Fr. proxime accedit.

5. **Scleroderma Zenkeri** P. Henn. in Engl. Bot. Jahrb. 1901, p. 57. — 815
Syll. XVI, p. 1118 (nomen). — Peridio subgloboso vel ovoideo, sessili v. substipitato, coriaceo corticato, pallide ochraceo dein ferrugineo, punctato-areolato, vertice irregulariter dehiscente 8-12 mm. diam.; gleba ferruginea minute marmorata, floccis ramosis, subhyalino-flavescentibus, fasciatis 3-5 μ. cr.; sporis globosis flavis v. brunneis 8-11 μ. diam., episporio atro-brunneo dense aculeato-asperato.

Hab. ad terram inter folia, Kamerun Afr.

Subgen. MYCENASTRUM Desv.

6. **Scleroderma Corium** (Guers.) Grav. — Syll. VII, p. 142. — var. **Sterlingii** Lloyd Mycol. Not. n. 12 (1902) p. 120, fig. 10-11. — A typo differt peridii superficie omnino levi, nec squamosa. 816

Hab. ad terram, Denver Colo Amer. bor. (E. B. STERLING).

7. **Scleroderma martinicense** (Pat.) Sacc. et D. Sacc. *Mycenastrum martinicense* Pat. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France T. XVIII, ser. II, 1902. — Ovoideum 5 cm. alt., 3 cm. crass., ochraceo-griseum; peridio duro e pilis pyramidalibus superne prædito, inferne in pseudo-stipitem 1 cm. long., attenuato; cortice nigro, rigido, corneo pseudoparenchymatico e cellulis magnis composito; columella gracili, albida, firma, tertium cavitatis attingente, superne incrassatula, laminas tenues radiantes emittente; capillitii floccis liberis, simplicibus, longe fusoideis, utrinque attenuatis 500-600 × 10-13, fuligineo-pallidis, levibus; gleba fuligínea; sporis rotundatis 3-5 μ. diam. pallidis, levibus, centro guttulatis. 817

Hab. ad terram in insula Martinica Americæ centr. — *Scl. cœlato* Pat. affinis species.

SCLERANGIUM Lév. — Syll. VII, p. 134, 138. — *Stella* Massee. — Syll. IX. p. 272.

1. **Sclerangium brasiliense** P. Henn. F. Amaz. I, pag. 186 (Hedw. 1904). — Peridio globoso-depresso, sessile 7-8 cm. diam., vertice ad medium stellatim dehiscente in lacinias 6 crasse coriaceas, extus rufo-brunneo squamoso, basi mycelio ramoso, filiformi; endoperidio evanescente; sporis globosis, ferrugineis vel castaneis 4-6 μ. verrucosis, capillitio nullo. 818

Hab. ad terram silvaticam, Rio Juruá, Marary Amazoniæ (ULE). — *Scl. americano* (Massee, sub *Stella*) forte affine.

POLYSACCUM D. C. — Syll. VII p. 146, IX p. 280, XI p. 167.

1. **Polysaccum pusillum** Har. et Pat. Journ. de Bot. 1903, p. 13. — Subglobosum, exiguum, 15-20 mm. lat., sessile v. basi in stipitem brevissimum, vix 5 mm., attenuatum, extus atro-brunneum vel olivaceuo-brunneum vix rugulosum, compactum; sporangiolis, minutis vix 1 mm. lat., angulatis, valde compressis, fuscis, dissepimentis tenuissimis, fragilibus, brunneis; sporis sphæricis, subtiliter verrucosis, 8-12 μ. diam., ochraceo-brunneis. 819

Hab. ad terram pr. Tendea, Nova Caledonia (Bernier). — Peridii et sporarum minutie prædistincta species.

DICTYOCEPHALUS Underw. in Bull. Torr. Bot. Club. 1901, p. 141 (Etym. *dictyon* rete et *cephalos* caput). — Peridium stipitatum, irregulariter secedens; stipes firmus farctus; volva cupulata, persistens ad basim stipitis; gleba parenchymatico-gossypina capillitium includens.

1. **Dictyocephalus curvatus** Underw. l. c. cum icone. — Exoperidio 820
lignoso ad basim stipitis volvam cupulatam efformante; endoperidio *sclerodermeo*, rugoso, intense brunneo, squamoso dehiscente 3-6 cm. alto, 5-8 cm. crasso; stipite 25-40 cm. longo, summo 3-6 cm. diam., ad basim 1,5-4 cm. diam., farcto, contorto, intense brunneo, longitudinaliter sulcato, apice rotundato et in columellam brunneo-luteolam producto; annulo subindistincto in summitate stipitis adfixo; gleba parenchymatico-gossypina; capillitio filamentoso, luteo, cylindrico, septato, ramos 8-10 μ. crasso; ramulis extremis liberis; sporis subglobosis, verrucosis, 6-7 μ. diam.

Hab. ad terram, Colorow, Colorado, Americæ bor. (E. Bethel).

XYLOPODIUM Mont. — Syll. VII p. 143, IX p. 279.

1. **Xylopodium Bonacinæ** Speg in Ann. Soc. Cient. Arg. 1899, p. 268. 821
— Solitarium vel hinc inde 2-3-gregarium, 8-20 cm. alt.; nodulo myceliali basali terra infosso e globoso obovato, 2-3 cm. long., 2-2,5 cm. diam., compactiusculo extus subspongioso granulis arenæ implexo; peridio primitus obovato clauso 3-10 cm. longo, 2,5-6 cm. diam., albo, levi v. grosse laxe subconcentrice retrorsumque squamoso-rimoso, apice obtuse rotundato atque in stipite ejusdem longitudinem subæquante 3-8 cm. long. 1-2 cm. diam., tereti v. compressulo, concolore, longitudinaliter minute striato-sulcato, cortice squamuloso, exoperidii vestigiis frustulatim secedente tecto, intus farcto, coriaceo rigidulo attenuato, dein exoperidio crassiusculo calyptratim caduco orbato, endoperidio mox longitudinaliter laciniatim dehiscente, laciniis 5-9 irregulariter linearibus vel lanceolatis, flexilibus revolutis, infundibulariter aperto; gleba subtabacina pulverulenta copiosissima, cavum totum endoperidii implente, sporis minutis globosis 4-5 μ. diam., levibus chlorinis efformata, floccis omnino destituta.

Hab. in aridis sabulosis et saxosis secus Rio Colorado Argen-

tiniæ. — *Xyl. Delastrei* Dur. et Mont. valde affine, sed, ut videtur, satis riteque distinctum.

PHELLORINA Berk. — Syll. VII p. 145, IX p. 279, XI pag. 167, XIV p. 267.

1. **Phellorina leptoderma** Patouill. in Bull. Soc. Myc. de France 1903, p. 250. — Peridio globoso, levi, circ. 3 cm. diam., flaccido, tenui, omnino evanescenti; stipite cylindrico 8 cm. longo, 8-10 mm. crasso, lignoso-corneo, farcto, basi bulboso, squamis membranaceis, tenuibus vestito, apice in discum orbicularem, lignosum, abrupte dilatato; gleba compacta, ochracea; sporis globosis 4-5 μ. diam., pallide ochraceis. 822

   Hab. in desertis prope Obock Africæ orient. — Affinis *Ph. Delastrei* Dur. et Mont.

2. **Phellorina** (*Areolaria*) **strobilina** Kalchbr. Grev. IX, p. 4 (1880). — Syll. VII, p. 144. — Huc spectat, teste cl. Hennings in Hedw. 1904, p. 187, *Xylopodium ochroleucum* Cooke et Massee, quæ species ergo delenda. Sporæ sunt globosæ 6-9 μ. diam., episporio flavo-brunneolo, asperulo (nec levi ut ap. C. et M.).

Fam. 4. Hymenogastraceæ Vitt.

HYMENOGASTER Vitt. — Syll. VII p. 168, IX p. 281, XI p. 170, XVI p. 252.

1. **Hymenogaster albidus** Massee in Kew Bull. 1901, p. 158. — Peridio globoso-difformi, 1-2 cm. diam., floccoso, sordide albido, demum lutescente; gleba brunnea, firma, cellulis tortuosis majusculis e basi ipsa sterili vix conspicuis; sporis ellipsoideis, utrinque obtusis, longitudinaliter carinatis, flavo-brunneis, 21-28 × 14-18, in quoque basidio binis. 823

   Hab. ad terram in Tasmania (Rodway).

2. **Hymenogaster Rehsteineri** Bucholtz, Hedw. 1903, p. 318, Ann. Mycol. 1903, t. V, f. 18, Beitr. Hypog. p. 156, t. III, f. 18, *Hym. decorus* Rehst. nec Tul. — Hypogæus sive subepigæus, irregulari-rotundatus, nucis avellanæ magnit.; peridio levi, c. 0,25 mm. cr., albo, dein luteolo; glebæ lacunis irregularibus e basi sterili subradiantibus; septis luteolis (sub microsc.), hyphis vascularibus (?) jodio interdum cærulescentibus instructis; basidiis hymenium raro 824

superantibus, bisporis; sporis ellipsoideis utrinque angustatis, apice papillatis, gutta oleosa impletis, 17-23 × 11, 5; episporio irregulariter rugoso-sinuoso, luteo-brunneo, diaphano, sinubus 0,5 μ. altis.

Hab. sub Tiliis, Michailowskoje Rossiæ.

3. **Hymenogaster verrucosus** Bucholtz, Hedw. 1901, pag. 319, Beitr. Hypog. pag. 158, t. III, f. 19. — Hypogæus, globosus, albidus, habitu et glebæ structura *Hym. Rehsteineri* similis; sporis obovato-ellipsoideis v. oblongis, breve papillatis 19-29 × 10-12 (sine sculptura), guttulatis, episporio brunneo, sinuoso-verrucoso, verrucis magnis irregularibus (ut in sporis *Hydnotriæ carneæ*), usque ad 3 μ. elevatis. 825

Hab. sub Tiliis, Michailowskoje prov. Mosquensis Rossiæ.

4. **Hymenogaster Suzukianus** P. Henn. in Engler Jahrb. 1902, XXXII, p. 41. — Peridio subgloboso-ovato, substipitato vel sessili, tenui, plicato-gyroso, clauso, corneo-brunneo ca. 5-10 mm. diam.; gleba carnosa laciniis irregularibus, gyrosis, creberrimis exculpta, ochracea; sporis citriformibus, verrucosis, rufo-brunneis, 15-18 × 12-14, superne papillatis, inferne substipitatis. 826

Hab. ad terram, Komaba (Japoniæ (F. Suzuki).

LEUCOGASTER Hesse — Syll. IX p. 281, XVI p. 249.

1. **Leucogaster badius** Mattirolo I funghi ipog. ital. in Mem. R. Acc. di Scienze, Torino 1903, p. 356, tab. I, fig. 1-3. — Irregularis, globosus vel gibberosus, (siccus) castaneo-badius, nucis avellanæ aut ovi magnitudine; peridio fibroso levi, tenui, mycelii ramulis radiciformibus adhærentibus saltim instructo; gleba castaneo-badia, loculis sporiferis, plerumque polygonis, magnitudine varia farcta; loculis, ob basidia dein labentia, sporis plerumque repletis; sporis 12-15 μ. diam.; exosporio minutissime tuberculato, reticulum simulante, gelatina hyalina cincto. 827

Hab. in abietinis, Boscolungo prope Pistorium (Pistoia), oppidum Italiæ centr. (O. Beccari, 1862).

DENDROGASTER Bucholtz, Beitr. Morph. Syst. Hypog. 1902, p. 148 (Etym. *dendron* arbor et *gaster* venter, ob columellam ramosam). — Fungus hypogæus, globosus. Peridium tenue, glebæ adnatum et ægre separabile. Gleba carnosa, lacunis irregularibus percursa. Columella ramosa e fungi basi sterili exsilions (ut in *Hysterangio*, sed non cartilaginea). Tramæ septa e columella ramisque ejus orientia, in peridium divergentia, undique cum eo concrescentia.

Basidia bispora; sporis ellipsoideis irregulariter verrucosis sive sulcatis.

1. **Dendrogaster connectens** Bucholtz l. c. p. 149, t. III, f. 15-16. 828
— Globosus, nucis avellanæ magnitudine, rufus, intus clarior; peridio tenui, glabro; gleba dilute ochraceo-brunnea; basidiis bisporis; sporis rufo-brunneis, oblongo-ellipsoideis, 20 × 10,7 (incluso sterigmate et sculptura) membrana irregulariter verrucosa vel sulcata.

Hab. in silvis Michailowskjanis in prov. Mosquensi Rossiæ.

TORRENDIA Bres. Myc. Lusitanici novi, in Atti R. Acc. di Sc., Lett. ed Arti degli Agiati in Roveredo, vol. VIII, 1901, p. 132 (Etym. a Camillo Torrend S. J. floræ mycologicæ lusitanicæ scrutatore sollertissimo). — Receptaculum stipitato-volvatum. Peridium pileatum, convexo-subhemisphæricum, ceraceo-subgelatinosum, intus cellulosum, a stipite liberum; stipite carnoso fibroso a peridio discreto; volva universali ampla, membranacea, persistenti; sporæ hyalinæ; basidia 1-4-spora. — Videtur *Amanitopsis* gasterospora. Generi *Batarreæ* et *Tylostomatibus* volvatis analogum, sed contextu ceraceo-gelatinoso v. carnoso-fibroso, teste auct., inter *Hymenogastraceas* locandum. « An *Secotio* quoque proximum? ».

1. **Torrendia pulchella** Bres. Myc. Lusitanici novi, in Atti R. Acc. 829
di Sc., Lett. et Arti degli Agiati in Roveredo, vol. VIII, 1902, pag. 132, f. 1-6. – Peridio convexo-subhemisphærico, pileiformi, albo, minute reticulato-areolato, subtus libero, fere ubique æque crasso, margine obtuso, 1-1,5 cm. lato, 8-10 mm. alto, cuticula tenui, glabra, non separabili 18-20 μ. crassa, contextu subparenchymatico; gleba subgelatinosa, alba, cellulosa, cellulis sæpe vacuis subrotundis, contextu intercellulari subparenchymatico, basidiophoro; basidiis clavatis 1-4-sporis, 25-30 × 7-10; sporis oblongis, sæpe crasse 1-guttatis 12-16 × 6-7 hyalinis; stipite carnoso-fibroso, centrali, a peridio discreto, albido, subglabro, tereti v. compresso, sæpe deorsum attenuato, 2-4 cm. longo, 2-6 mm. crasso, ex hyphis septatis, cylindraceis, usque ad 30 μ. latis, contexto; volva membranacea, ampla, lobata, pallida, libera, sæpe in peridio fragmenta relinquente, basi radiculis prædita.

Hab. in locis sabulosis pr. Setubal Lusitaniæ.

RUHLANDIELLA P. Henn. in Hedw. 1903, p. (24) (Etym. a cl. doctore W. Ruhland berolinensi). — Ascomata superficialia, globosa,

levia glabra, intus gelatinoso-carnosa, pseudoparenchymatica, hyalina, basi myceliophora. Asci cylindraceo-clavati, octospori, paraphysati; sporæ globosæ, brunneæ, reticulato-verrucosæ.

1. **Ruhlandiella berolinensis** P. Henn. l. c., cum icone. — Ascomate 890
superficiali, globoso, basi depresso myceliophoro, extus levi, glabro, pallido v. brunnescente, ca. 5-6 mm. diam., intus gelatinoso-subcarnoso, pallido, pseudoparenchymatico, homogeneo; ascis cylindraceo-clavatis, raro subovoideis, vertice subrotundato-obtusis, basi plus minus attenuatis 8-sporis, ca. 200-220 µ. longis, p. spor plerumque 150-180 × 20-25, interdum ca. 100 × 45; paraphysibus copiosis, filiformibus, septatis, hyalinis, apice vix incrassatis, obtusis, ca. 3-3,5 µ. cr.; sporis plerumque monostichis, interdum subdistichis, ca. 15-18 µ. (sine sculpt.), episporio primo hyalino, levi, dein brunneo, reticulato-verrucoso; verrucis subbacillatis, apice obtusis v. applanatis 3-3,5 × 1,5.

Hab. in tepidariis, ad terram in olla Melaleucæ, in horto berolinensi Germaniæ.

LYCOGALOPSIS Fisch. — Syll. VII p. 153.

1. **Lycogalopsis Dussii** Pat. Champ. de la Guadeloupe, ser. III. in 891
Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Peridiis globulosis, aggregatis vel sparsis ex albo ochraceis, infra applanatis vel attenuatis, astomis, denique vertice irregulariter diffractis, verrucis albis remotis, perexiguis, angulosis subinde 3-4 apice conniventibus conspersis, mycelio albo, submembranaceo vel fasciculato-ramoso basi cinctis; gleba pallide ochracea cavitatem totam implente, initio in lacunas minutas radiantes excavata; basidiis lacunæ parietes investientibus ovoideis; sterigmatibus quaternis brevibus, sporis globulosis perexiguis 2 µ. diam., pallidissime ochraceis, asperulis, sessilibus vel interdum hilo brevissimo præditis.

Hab. ad terram ad fragmenta lignea putrida, in Martinica (Duss). — *L. Solmsii* peraffinis, sed peridiis majoribus et verrucosis diversa. Gleba denique pulverulenta et filamentis capillitii e basi peridii radiantibus angustissimis, 2 µ. crass. percursa.

Dubiæ sedis.

GASTROSPORIUM Mattirolo, I funghi ipog. ital. in Mem. R. Accad. di Torino, 1903, p. 361 (Etym. *gaster* venter, gleba et *spora*). — Peridium hypogæum, subglobosum, intus gelatinosum, hyalinum,

homogeneum absque lacunis, sporis minutissimis globulosis subolivaceis farctum.

1. **Gastrosporium simplex** Mattirolo, I funghi ipog. ital. in Mem. R. Acc. d. Scienze, Torino 1903, p. 361, tab. I, fig. 4-10. — Fungus hypogæus globosus vel globoso-irregularis; peridio crasso, externe lacteo, pulverulento, interne gelatinoso, hyalino nitente; gleba homogenea, sine lacunis; sporis minutissimis, innumeris, sphæricis, levibus, hyalinis, olivaceis, 3 μ. diam. composita; capillitio nullo.

Hab. inter radices graminum in Etruria et Æmilia Italiæ (P. Beccari, 1862-64!).

PAUROCOTYLIS Berk. — Syll. VII, p. 152. — Teste cl. Patouillard in Bull. Soc. Mycol. 1903, p. 339, *P. pila* Berk. est ex *Hymenogastreis*, affinis generi *Hydnocysti* et *P. fulva* B. et Br. est *Endogoni* affinis; utraque ideo a *Lycoperdaceis* expungenda.

UREDINACEÆ Brongn. *)

Syll. VII p. 528, IX p. 291, XI p. 174, XIV p. 269, XVI p. 257.

Sect. 1. Amerosporæ.

UROMYCES Link — Syll. VII p. 531, IX p. 291, XI p. 174, XIV p. 269, XVI p. 257.

1. **Uromyces Mulgedii** Lindr. Act. pro Fauna et Fl. Fenn. XX, n. 9, 1901, p. 18 cum icone. — Soris punctiformibus, brunneis, amphigenis, initio nudis dein pulverulentis; teleutosperis 20-28 × 10-21, rotundato-ellipticis vel elliptico-oblongis, episporio brunneo verruculoso donatis; poro germinationis singulo, mediano vel in summo vertice; pedicello brevi, hyalino, caduco. 833

   Hab. in foliis Mulgedii tatarici, Tibet (herb. Stockholm).

2. **Uromyces Saussureæ** Karst. Fungi nov. Loennb. 1904, p. 6 (Finska Vetensk. Soc.). — Soris epiphyllis sparsis, epidermide rupta cinctis, fuscis; teleutosporis sphæroideis, fuscis, 20-25 μ. diam. 834

   Hab. in foliis Saussureæ circa Kurgan-Onsk Sibiriæ Julio 1902 (O. A. F. Lönnbohm).

3. **Uromyces cucullatus** Syd. in Ann. Mycol. 1904. p. 349. — Soris teleutosporiferis hypophyllis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, circ. $^1/_2$ mm. diam., omnino pulverulentis, atris; teleutosporis globosis v. subglobosis, rarius ovoideis, utrinque rotundatis, verrucosis, apice cucullo hyalino-flavescenti magno, 6-8 μ. alto, instructis, castaneo-brunneis, 22-33 μ. longis (cum cucullo), 18-22 μ. lat., episporio circ. 3 μ. cr., pedicello hyalino, persistenti, crassiusculo, usque 45 μ. longo. 835

   Hab. in foliis Zexmeniæ aurantiacæ, Costarica (Tonduz

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*) Conferenda potissimum eximia *Monographia Uredinearum* oll. P. et H. Sydow (cujus complementum avide exspectamus), nec non egregiæ contributiones bio-morphologicæ v. systematicæ de Uredineis oll. J. Eriksson, H. Klebahn, Ed. Fischer, P. Dietel, P. Magnus etc.

ex F. W. Negeb). — Cucullo teleutosporarum mox dignoscenda species.

4. **Uromyces Wulffiæ** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904. — Maculis rotundato-angulatis vel effuso-confluentibus, exaridis, ferrugineis; soris amphigenis, sparsis vel aggregatis, minutis, fuscis vel cinnamomeis; uredosporis subglobosis, ovoideis vel ellipsoideis, flavidis v. subfuscidulis, 15–20 × 10-14, episporio aculeato; teleutosporis oblonge subfusoideis vel clavatis, apice plus minus incrassatis, applanatis, papillatis vel crenulatis, episporio flavo brunneolo, levi, 20-35 × 14-18; pedicello usque ad 40 × 4, hyalino.

Hab. in foliis Wulffiæ spec., Rio Juruá, Juruá-Miry Americæ meridionalis.

5. **Uromyces Wedeliæ** P. Henn. Pilze Japan. II, p. 150 (Hedw. 1904). — Soris amphigenis, sparse gregariis, pulvinatis, ferrugineo-brunneis, ca. 0,3 mm. diam.; uredosporis subglobosis vel ellipsoideis, 25-40 × 22-30, episporio castaneo, aculeato; teleutosporis ovoideis vel subellipsoideis, apice crasse papillatis, rotundatis, papilla ca. 6-10 μ. diam., flavido-brunnea, episporio læte brunneo, levi, 25–40 × 20-26; pedicello 30-60 × 4, hyalino, persistenti.

Hab. in foliis Wedeliæ prostratæ, Tosa, Shinoyama, Japonia (T. Yoshinaga).

6. **Uromyces Komarovii** Bubák Sitzungsber. Kgl. böhm. Ges. Wissensch. 1902, p. 11 (extr.) fig. 25-35. — Soris hypophyllis, congestis, in maculis luteis vel brunneolis, rotundatis, sæpe confluentibus insidentibus; teleutosporis fusiformibus, raro breve ellipsoideis 22-35,2 × 8,8-15,4 pallide luteis, depressis apice late v. obtuse protractis, basi plerumque conicis; pedicello exili, hyalino, sporâ usque duplo longiore, superne 4-5 μ. crasso.

Hab. in foliis Solidaginis Virgaureæ, ad trajectum Dschai-guan-zai-lin, in via ex oppidulo Omoso ad urbem Kirin in silvis primævis jugi Mandschurici Rossiæ asiat. (Wladimir Komarow).

7. **Uromyces sakavensis** P. Henn. in Hedw. 1903, p. (107). — Maculis fuscidulis, rotundatis; soris teleutosporiferis hypophyllis, sparsis v. aggregatis, ferrugineis, pulvinatis; teleutosporis fusoideis, apice incrassatis, apiculatis v. bifidis 20-22 × 10-12, episporio pallide flavido, levi; pedicello persistente, hyalino 20 × 2,5-3.

Hab. in foliis Solidaginis virgaureæ, Sakawa, Tosa Japoniæ (Yoshinaga).

8. **Uromyces Hellerianus** Arthur, Bull. Torr. Bot. Cl. 1904. p. 2. —

Pycnidiis et æcidiis non visis; soris uredosporiferis rotundatis, fere nudis, pulverulentis, pallide brunneis; uredosporis globosis vel 3-anguloso-globosis 20-26 μ. diam., episporio 1,5-2 μ. cr., cinnamomeo-brunneo; poris 2 vel 3 sparsis; soris teleutosporiferis hypophyllis, rotundatis, subnudis, pulverulentis, intense brunneis; teleutosporis globoso-ovoideis, 27-36 × 21-24, utrinque rotundatis; episporio brevi, exili, hyalino.

Hab. in foliis Cayaponiæ racemosæ, Ponce, Porto Rico Amer. (H. A. Heller). — Ab *Urom. Cayaponiæ* P. Henn. teleutosporis levibus umbonatisque differt.

9. **Uromyces Psychotriæ** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 1904). — Maculis sparsis rotundatis vel effusis paginam foliorum omnino occupantibus, flavido-fuscidulis; soris hypophyllis gregarie sparsis, minutis, rotundato-angulatis, flavido-brunneis, subceraceis; uredosporis hyalinis, minute aculeatis, intermixtis; teleutosporis ovoideis, clavato vel subfusoideo-oblongis, apice rotundatis haud incrassatis, 22-30 × 11-14, intus granulatis, episporio hyalino flavidulo; stipite plus minus elongato, hyalino, ca. 3 μ. crasso. 841

Hab. in foliis Psychotriæ, Rio Juruá, Juruá-Miry Amer. merid. — Soris subceraceis sporisque subhyalinis bene distincta species.

10. **Uromyces Bouvardiæ** Syd. Ann. Mycol. 1903, pag. 16. — Soris uredosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute flavo-brunneis, 19-27 × 19-25; soris teleutosporiferis amphigenis, sæpius epiphyllis, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, atro-brunneis v. atris; teleutosporis globosis, subglobosis v. ovatis verruculosis, amœne castaneo-brunneis, episporio in sporis globosis æqualiter crasso 5–6 μ., in sporis ovatis v. ellipsoideis apice incrassato, usque 8 μ, 32-42 × 32-38; pedicello hyalino, crasso, persistenti, leniter inflato, usque 40 μ. longo. 842

Hab. in foliis vivis Bouvardiæ leianthæ, Jumaytepeque in Guatemala (Heyde et Lux).

11. **Uromyces induratus** Syd. et Holw. Ann. Mycol. 1903, p. 16. — Æcidiis plerumque hypophyllis, maculis rotundatis v. irregularibus flavo-brunneis v. brunneis, minutis ca. 2-4 mm. diam. insidentibus, paucis 3-10 plerumque irregulariter aggregatis, ut plurimum ad nervos foliorum in partibus leniter tumefactis et irregularibus insidentibus, cupulatis, margine revoluto, inciso, albo- 843

flavo; æcidiosporis globoso-angulatis, tenuissime verruculosis vel sublevibus, flavescentibus 14-19 μ. diam.; soris teleutosporiferis præcipue in caulibus evolutis, rarius hypophyllis, oblongis, perduris, compactis, atris, mediocribus, 1-3 mm. long.; teleutosporis quoad formam et magnitudinem valde variabilibus, ovatis, ovato-oblongis, oblongis vel interdum subclavatis, apice rotundatis vel leniter attenuatis, leniter incrassatis, usque 6 μ., basi sæpe in pedicellum attenuatis, levibus, flavis v. flavo-brunneolis 27-38 × 10-15, interdum etiam usque 50 μ. longis; pedicello flavo, persistenti; crassiusculo, usque 40 μ. longo; paraphysibus numerosissimis, rufo-brunneis, densissime coalitis.

Hab. in foliis caulibusque vivis Dicliptera spec. Morelia in Mexico (Holway).

12. **Uromyces venustus** Diet. et Holw. in Bot. Gaz. 1901, p. 326. — Æcidiis hypophyllis, sparsis vel in parvulos greges congestis, hemisphæricis, poro pertusis; æcidiosporis globosis v. ellipticis 29 × 20-25, minute verrucosulis; soris teleutosporiferis epiphyllis, æcidiorum oppositis, in greges circulares dispositis, magnitudine variabilibus, interdum confluentibus, immersis, pulverulentis, intense brunneis; teleutosporis ovato-ellipsoideis, interdum fere globosis 32-40 × 20-28, pallide brunneis, apice pallidioribus acuminatis; episporio crasso longitudinaliter striatulo; pedicello hyalino sporæ æquilongo, exili. 844

Hab. in foliis Cestri nitidi, Amecameca Mexico. — Ab *Ur. Cestri* Mont. papilla apicali, episporio striatulo differt.

13. **Uromyces dolichosporus** Diet. et Holw. in Bot. Gaz. 1901, p. 327. — Pycnidiis epiphyllis; soris uredosporiferis plerumque hypophyllis, intense brunneis; uredosporis obovatis intense brunneis 33-47 × 23-27, episporio crassiusculo echinulato donatis; poris germinationis 3; soris teleutosporiferis plerumque hypophyllis, sparsis, circulatim dispositis, luteo-aurantiacis; teleutosporis oblongo-fusiformibus vel oblongo-clavatis 45-65 × 12-18, episporio hyalino, levi; pedicello firmo sporæ æquilongo. 845

Hab. in foliis Tournefortiæ velutinæ, Oaxaca Mexico.

14. **Uromyces cabo-friensis** P. Henn. in Hedw. 1904, p. 79. — Soris teleutosporiferis amphigenis, gregariis, pulvinatis, firmis, atris; teleutosporis ellipsoideis vel ovoideis, apice rotundatis, haud incrassatis, brunneis, medio 1-septatis constrictis 16-25 × 13-20, pedicello persistente, hyalino usque 120 × 4. 846

Hab. in foliis Oxypetali spec., Cabo Frio, pr. Rio de Janeiro Brasiliæ (C. Ule).

15. **Uromyces Fraseræ** Arthur et Bicker in Journ. of Mycol. 1902, p. 128. — Soris amphigenis, ovoideis vel ellipticis, interdum confluentibus, 1-2 mm. longis; uredosporis obovatis, ellipticis vel oblongis 22–32 × 19–26 luteo–viridulis, episporio hyalino minute verrucoso; poris germin. numerosis; teleutosporis globosis obovatis vel oblongis, interdum subangulosis 25-35 × 19-26 pallide brunneis, pedicello hyalino, fragili, 7–16 × 3 donatis. 847

Hab. in foliis Fraseræ speciosæ, Wilson, Wyo Amer. bor.

16. **Uromyces Ferulaginis** Lindroth, Umbellif. Ured. 1902, p. 148. — Teleutosporis minutis, planis, vix 1 mm. diam., nigris, nitidulis, initio epidermide tectis, dein nudatis, leviter emergentibus; teleutosporis subglobosis v. sæpius ellipsoideis, 18-33 × 17-23; membrana brunnea, 2 μ. cr., levi; poro germinativo unico laterali v. infero, papilla latiuscula rotundata, usque 3 μ. alt.; stipite brevi, hyalino, tenui, caduco. 848

Hab. in Ferulagine monticola in reg. inf. M. Parnassi Græciæ (Orphanides).

17. **Uromyces Ferulæ** Juel in Bull. Soc. Myc. de France 1901, p. 259, cum icone, *Æcidium Ferulæ* Rouss. et Dur. — Syll. VII, p. 793. — Soris teleutosporiferis subrotundis vel oblongis 0,5-1 mm. latis, paullo prominentibus, diu epidermide velatis, intense brunneis; teleutosporis breve pedicellatis, ellipsoideis vel irregularibus 23–30 μ. diam., episporio pallide brunneo, superne incrassato. 849

Hab. in caulibus et petiolis Ferulæ communis, Alger Africæ bor.

18. **Uromyces Sii-latifolii** Karst. Fungi nov. Loennb. 1904, p. 6 (Finska Vetensk. Soc.). — Soris teleutosporiferis, hypophyllis, per epidermidem fissam erumpentibus confertissimis, interdum confluentibus, mediocribus, fuscis; teleutosporis sphæroideis, verruculosis, fuscis, 14-20 μ. diam. 850

Hab. in foliis vivis Sii latifolii prope oppidum Rossiæ Samara Junio 1902 (O. A. F. Lönnbohm).

19. **Uromyces Pteroclænæ** Lindr. Die Umbellif. Ured. 1902, p. 148. — Teleutosoris punctiformibus, minutis, fere nigris, compactis ab epidermide diu tectis; teleutosporis inæqualiter ellipsoideis 22-40 × 15-25, vertice sæpe obtusis; membrana levi flavido-brunnea, vertice sæpe obscuriore et 3-5 μ. rarius usque 9 μ. cr.; poro germinativo unico, sæpe laterali; stipite persistente, flavido, 60-70 × 6 9. 851

Hab. in Cachryde pteroclænæ, Constantine in Algeria (C. Choulette).

20. **Uromyces Mercurialis** Henn. in Hedw. 1902, p. (62). — Maculis 852
minutis, rotundatis, fuscidulis; soris gregarie sparsis, epidermide rupta, pallida cinctis, ferrugineis, pulverulentis, ca. 0,6–1 mm. diam.; teleutosporis ellipsoideis v. ovoideis, interdum subglobosis, apice subhyalino papillatis, papilla hemisphærica 3-4 μ. diam., flavo-brunneolis, intus granulatis, 15-26 × 15-18, episporio brunneo, tenui, levi; stipite fragili, hyalino brunnescente, usque ad 20 × 3-4.

Hab. in foliis vivis Mercurialis leiocarpæ, Mont Yokogura Japoniæ (Yoshinaga).

21. **Uromyces oaxacanus** Diet. et Holw. in Bot. Gaz. 1901, p. 327. 853
— Soris epiphyllis, irregulariter sparsis, rarissime hypophyllis, parvulis, pulverulentis, nigris; teleutosporis ovatis, ellipticis vel subglobosis, frequenter angulosis et irregularibus, 25–35 × 18–24, episporio pallide brunneo, apice non incrassato, verrucoso; pedicello hyalino, sæpe sporæ æquilongo.

Hab. in foliis Jatrophæ urentis, Oaxaca Mexico.

22. **Uromyces Euphorbiæ-connatæ** N. Speschnew, Fungi transcaspici 854
et turkestanici, 1901, p. 7, tab. I, fig. 16-21. — Soris amphigenis sparsis, in acervulos plus minus mediocres, circulares congestis, in pag. inferiore foliorum hemisphæricis, epidermide tectis, dein suberumpentibus; uredosporis dilute brunneis, obovatis, irregulariter verrucosis, 20-24 × 16-19, poris germinationis 2 æquatorialibus instructis. teleutosporis ellipsoideis vel obovatis, flavido-castaneis, 24–29 × 20-25; pedicello ca. 50 μ. longo, hyalino.

Hab. in foliis Euphorbiæ connatæ in Rossia asiatica.

23. **Uromyces hypsophilus** Speg. Mycet. Argent. ser. II, 1902, p. 60. 855
— Maculis nullis sed matrice carnosulo-incrassata, pallescente; acervulis rarissime epiphyllis suborbicularibus, 0,5–1 mm. diam., epidermide disrupta cinctis, sæpius per ætatem confluentibus ac totum hypophyllum obtegentibus; soris subconfluentibus fulvo-ferrugineis; sporis globosis v. obovatis 26 × 20-25, eximie minuteque apiculatis, spiraliter tenuiterque 10-15-striatis, fulvis, pedicello hyalino fragilissimo breviore donatis.

Hab. ad folia viva Euphorbiæ spec. prope Mendoza, in Argentinia. — Species *Ur. scutellato* (Schrk.) Lév. et *Ur. Kalmusii* Sacc. affinis, tamen sat distinctus videtur.

24. **Uromyces Kabatianus** Bub. in Vetergr. Mic. rar. selecti, Bot. Not. 856
1902, pag. 176. — Pycnidiis et æcidiis in maculis luteis, rotun-

datis; pycnidiis amphigenis, magnis, melleis, postea obscuris; pseudoperidiis hypophyllis, dense aggregatis, basi immersis, primo subhemisphæricis, clausis, dein medio apertis cupuliformibus; æcidiosporis aurantiacis, raro rotundatis vel polyhedricis, maxima ex parte oblongis, ovoideis vel ellipsoideis 24-33 × 18-26, membrana lutea, dense et conspicue tuberculata; soris uredosporiferis hypophyllis, maculis luteis insidentibus, in circulis dispositis, raro dispersis, brunneis, pulvinatis; uredosporis globosis vel rarissime ovoideis 22-26,5 μ. diam., membrana lutea, disperse aculeata donatis; soris teleutosporiferis hypophyllis, oblongis, orbiculariter dispositis, confluentibus, brunneis, pulvinatis, membrana tenui et nitida haud diu tectis; teleutosporis ovoideis, ellipsoideis v. oblongis 31-42 × 20-24; membrana dilute fusca 1 μ. crassa levi, apice papilla fusca, planiuscula 2-3 μ. alta donatis.

Hab. in foliis Geranii pyrenaici, Pragæ in Germania.

25. **Uromyces Pavoniæ** Arthur, Bull. Torr. Bot. Cl. 1904, p. 1. — 957
Soris teleutosporiferis hypophyllis, subrotundatis, in greges 1-3 mm. circinato-congestis, compactis, fere nudis, pulvinatis pallide brunneis; teleutosporis obovato-globosis, 23-28 × 18-20, utrinque rotundatis; episporio superne 4-7 μ. crasso, centro 2-3 μ. cr., levi, brunneolo; pedicello filiformi, hyalino 35-55 μ. longo.

Hab. in foliis Pavoniæ racemosæ, Mayagues Joyua, Porto Rico Amer. (L. M. Underwood).

26. **Uromyces capitatus** Syd. in Oesterr. bot. Zeitschr. 1902, n. 5. — 958
Soris teleutosporiferis epiphyllis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, verrucosis, dilute brunneis, 18-23 μ. d.; teleutosporis perfecte globosis v. depresso-globosis, apice non incrassatis, dense verrucosis, obscure brunneis, subopacis 18-24 μ. diam. vel 16-22 μ. altis et 22-25 μ. latis; pedicello hyalino, crassiusculo, persistenti, ca. 30-35 μ. longo.

Hab. in foliis vivis Desmodii yunnanensis in prov. Yunnan Sinarum (Delavey).

27. **Uromyces huallagensis** P. Henn. Fungi Amaz. I, p. 157 (Hedw. 1904). — Maculis gregarie sparsis, rotundatis, flavis; soris amphigenis, sparsis, pustulatis vel confluentibus, ochraceo-ferrugineis, uredosporis subglobosis, ovoideis, brunneis, echinatis, 20-26 × 17-20; teleutosporis elongato-fusoideis vel clavatis, apice obtuse rotundatis vel subacutiusculis, vix incrassatis, 20-40 × 12-15, episporio tenui, hyalino-fuscidulo, pedicello hyalino, ca. 10-20 × 2-4. 959

Hab. in foliis Desmodii spec. Peru, Rio Huallaga, Tarapoto Amer. mer. — A ceteris speciebus in *Desmodio* crescentibus diversa.

28. **Uromyces yurimaguasensis** P. Henn. Fungi Amaz. I, pag. 157 (Hedw. 1904). — Maculis rotundatis vel explanatis, pallide ferrugineis; soris sparsis vel subgregariis, pulvinatis, ferrugineis, pulverulentis; uredosporis ellipsoideis vel subglobosis, brunneis, verrucosis, 16–25 × 14–20; teleutosporis subglobosis læte brunneis, 20–23 μ. levibus; stipite hyalino, fragili, ca. 20-40 × 3. 860

Hab. in foliis Clitoriæ cujusdam, Peru, Rio Huallaga, Yurimaguas, Amer. merid.

29. **Uromyces Trigonellæ-occultæ** Henn. in Hedw. 1902, p. (211). — Maculis flavidis vel obsoletis; uredosoris amphigenis, sparsis, brunneis, minutis; uredosporis subglobosis 17-20 μ.; episporio cinnamomeo, minute verrucoso; teleutosoris rotundato-pulvinatis, amphigenis, sparsis vel gregariis atro-castaneis; teleutosporis subglobosis vel ovoideis 19–23 × 18-20, episporio verrucoso, atro-cinnamomeo; stipite brevi, fragili hyalino. 861

Hab. in foliis Trigonellæ occultæ pr. Katatbe-Kanal in Ægypto.

30. **Uromyces occidentalis** Diet. in Hedw. 1903, p. (98). — Soris in maculis expallentibus orbicularibus plerumque hypophyllis, sparsis vel circinatis, minutis, subinde confluentibus, pulveraceis; uredosoris ochraceo-brunneis; teleutosoris atro-castaneis, epidermide elevata cinctis; uredosporis globosis rarius late ellipsoideis, 19-23 μ. diam.; membrana 1,5-2,5 μ. cr., brunnea, breve spinulosa; poris germinationis 6-8; teleutosporis globosis v. late ellipsoideis, 17–26 × 16–21, intense brunneis, membrana 1–2 μ. cr. dense verrucosa, apice non incrassata; stipite caduco. 862

Hab. in foliis Lupini latifolii, Sissons Californiæ (Blasdale), Lupini argentei et Lupini Sileri, Gunnison Californiæ (Bartholomew).

31. **Uromyces Yoshinagai** P. Henn. in Hedw. 1901, p. (124). — Maculis flavidis v. fuscidulis; æcidiis hypophyllis interdum epiphyllis sparsis vel gregarie dispositis, sine pycnidiis; pseudoperidiis cupulatis, pallide flavidis, margine subfimbriatis ca. 0,3 mm. diam., contextu cellulis polyhedricis, granulosis, hyalinis; æcidiosporis subgloboso- v. ellipsoideo-angulatis, intus aurantiaco-oleosis 14–19 × 10-14, episporio granulato, subhyalino; soris uredosporiferis amphigenis, pallide ferrugineis, epidermide pallide velatis; uredospo- 863

ris subglobosis v. ellipsoideis, flavidis, 20-25 × 18-20, episporio subtiliter granulato-verrucoso; soris teleutosporiferis amphigenis, sparsis, minutis, ferrugineis, epidermide velatis; teleutosporis ovoideis v. ellipsoideis, apice rotundatis, plus minusve incrassatis, papillatis 20–28 × 16-20, episporio castaneo, levi, pedicello persistente, crasso, fusco-cinereo, 18-30 × 6–7.

Hab. in foliis Pisi sativi prope Kamomura in prov. Tosa Japoniæ (T. Yoshinaga).

32. **Uromyces valesiacus** Ed. Fischer Bull. Herb. Boiss. 1902, p. 952 (absque diagnosi). — I. Æcidium. Pseudoperidiis poculiformibus, margine albido-flavido, reflexo, denticulato; cellulis pseudoperidii irregulariter seriatis, tunica externa 5-7 μ. cr., interiore tenuiore (cum sculpturis) 3 μ. cr., verruculosa; æcidiosporis ellipsoideo-polyhedricis 18–24 μ. diam., membrana tenui minute crebre verruculosa. II. Uredosporis inter teleutosporas sparsis, globosis, 24–28 μ. diam. laxe verrucosis; poris germinativis 4 vel 3. III. Teleutosporis fere ut *Urom. Fabæ*, sed paullo minoribus apice depresso-papillatis pedicellisque multo magis caducis. 864

Hab. in foliis Viciæ onobrychioidis in Helvetia (Morthier, Ed. Fischer). — Affinis *U. Fabæ*.

33. **Uromyces Viciæ-Craccæ** Constantineanu, Ann. Mycol. 1904, p. 252 cum icone. — Soris teleutosporiferis amphigenis, ellipsoideis vel rotundatis, primo epidermide bullata et fissa tectis, dein cinctis et pulvinatis; teleutosporis castaneo-brunneis, raro subsphæricis, diametro 18,5-23, vulgo ellipsoideis vel piriformibus 21,6-26 μ. longis, 20,9-22,2 μ. crassis, apice papilla conica obtusa, hyalina ornatis; membrana longitudinaliter lineolis parallelis vel anastomosantibus præditis, raro sublevibus; pedicello deciduo, hyalino, usque 40 μ. longo; paraphysibus filiformibus, hyalinis. 865

Hab. in foliis Viciæ Craccæ ad Valea-adinca et Breazu in districtu Jassy Romaniæ.

34. **Uromyces Psophocarpi** Syd. Ann. Mycol. 1903, p. 16. — Pseudoæcidiis amphigenis, irregulariter sparsis, minutis, epidermide semigloboso-elevata diu tectis, tandem liberis et epidermide fissa cinctis, cinnamomeis; sporis globosis, subglobosis vel ovato-ellipsoideis, levibus, flavis v. flavo-brunneolis 19-34 × 17–26; teleutosporis adhuc ignotis. 866

Hab. in foliis vivis Psophocarpi longepedunculati Chinchoxo, in Africa occ. (West-Afrika) (Soyaux).

35. **Uromyces tarapotensis** P. Henn. Fungi Amaz. I, p. 156 (Hedw. 867

1904). — Maculis rotundatis vel confluentibus inflatis, subferrugineis; soris hypophyllis sparsis v. aggregatis, bullatis, ferrugineis; teleutosporis subfusoideis, ovoideis vel ellipsoideis, apice rotundatis vel applanatis haud incrassatis, 20-30 × 15-20, episporio tenui, levi, hyalino subfuscidulo, pedicello hyalino, gracili usque ad 45 μ. longo, 3-4 μ. crasso.

Hab. in foliis Camptosemæ spec.? Peru, Huallaga, Tarapoto, Amer. merid. — Sæpe *Tuberculinâ* infectus.

36. **Uromyces Pseudarthriæ** Cooke — Cfr. Syll. VII, pag. 579. — Syd. in Ann. Mycol. I, 1903, p. 324. — Maculis epiphyllis, brunneis, indeterminatis; soris uredosporiferis hypophyllis, irregulariter sparsis vel hinc inde laxe aggregatis, in tomento plantæ nutricis nidulantibus, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavo-brunneolis, 19-25 × 16-22; episporio tenui.

Hab in foliis Pseudarthriæ Hookeri in insula Togo (R. Büttner).

37. **Uromyces Bolusii** Massee in Kew Bull. 1901, p. 168. — Soris 868
epiphyllis, innato-prominulis, compactis, brunneo-cinnamomeis, sæpe ob confluentiam linearibus, diu epidermide albicanti tectis; teleutosporis ellipticis, episporio levissimo sursum valde incrassato et in mucronem papillæformem producto, 29-35 × 24-26, pallide brunneis, stipite longissimo 125-160 × 7-8 hyalino suffultis.

Hab. in foliis vivis Aspalathi pachylobæ, in Colonia Capitis Bonæ Spei Africæ merid. (Bolus). — *U. Junci* Tul. affinis.

38. **Uromyces Indigoferæ** Diet. et Holw. in Bot. Gaz. 1901, p. 328. 869
— Soris plerumque epiphyllis, sparsis vel in parvulos greges congestis, in maculis brunneis insidentibus, vel in petiolis fructuum immaturorum, parvulis, immersis, erumpentibus, intense-brunneis; uredosporis globosis vel ellipsoideis, spinulosis, brunneis 20-25 × 18-23; teleutosporis ellipsoideis vel globosis, levibus, pallide-brunneis, apice subincrassatis 20-30 × 18-25; pedicello longo, firmo, hyalino.

Hab. in foliis petiolisque Indigoferæ mexicanæ, Oaxaca Mexico.

39. **Uromyces sphærocarpus** Syd. in Ann. Mycol. 1904, p. 349. — 870
Soris uredosporiferis hypophyllis, rarius epiphyllis, maculis nullis v. obsoletis sparsis, minutis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis 18-24 μ.

diam., rarius usque 26 μ. longis; soris teleutosporiferis conformibus, epidermide fissa cinctis, obscurioribus; teleutosporis globosis, apice non incrassatis, verrucis conicis acutiusculis dense obtectis, castaneo-brunneis, 18-20 μ. diam.; pedicello brevi, hyalino, deciduo.

Hab. in foliis vivis Indigoferæ tinctoriæ, Kawakita pr. Tosa Japoniæ (T. Joshinaga).

40. **Uromyces ingicola** P. Henn. Fungi Amaz. I, pag. 157 (Hedw. 1904). — Maculis rotundatis, fuscidulis; soris sparsis vel aggregato-confluentibus hypophyllis interdum epiphyllis, pulvinatis, fuscis; uredosporis subglobosis, brunneis, verrucosis, 18-22 μ.; teleutosporis ovoideis vel fusoideis, apice incrassato papillatis vel rotundatis, 23-30 × 17-20, episporio flavido-fuscidulo, longitudinaliter flexuose striato, subtuberculato; pedicello fragili, brevi, hyalino-fuscidulo. 871

Hab. in foliis Ingæ spec. Rio Juruá, Juruá-Miry, Amer. merid. — Teleutosporis longit. flexuoso-striatis dignoscitur.

41. **Uromyces caraganicola** P. Henn. in Hedw. 1901, pag. (124). — Maculis nullis; soris uredosporiferis hypophyllis, sparsis, minutis, epidermide pallida fissa tectis, dein pallide ferrugineis; uredosporis ellipsoideis, ovoideis v. subglobosis, pallide brunneis 20–25 × 18-20, episporio minute aculeato; soris teleutosporiferis sparsis hypophyllis, ferrugineis, epidermide fissa velatis; teleutosporis ellipsoideis v. ovoideis apice rotundato-obtusis, paullo incrassatis, interdum papillatis 20-25 × 15–20, episporio punctulato, castaneo, pedicello brevi hyalino. 872

Hab. in foliis Caraganæ Chamlagu, prope Sakawa in prov. Tosa Japoniæ (T. Yoshinaga).

42. **Uromyces Sophoræ-japonicæ** Diet. in Bot Jahrb. 1902, p. 47. — Soris hypophyllis, sparsis, minutis, epidermide fissa cinctis v. semitectis, uredosporiferis cinnamomeis, teleutosporiferis obscure castaneis; uredosporis obovatis flavo-brunneis, spinulosis 26-34 × 18-25, poris binis instructis; teleutosporis ellipticis, rarius subglobosis, apice plerumque conoideis, 35–47 × 27-35, castaneis, irregulariter verrucosis, pedicellis longitudine sporas superantibus, hyalinis suffultis. 873

Hab. in foliis Sophoræ japonicæ, Tokyo Japoniæ (Kusano).

43 **Uromyces Sophoræ-flavescentis** Kusano Bot. Mag. Tokyo 1904, VIII, p. 203, fig. 3. — Uredosoris hypophyllis, indefinite sparsis, irregularibus, rufo-aurantiis pulverulentis, aparaphysatis; uredo- 874

sporis globosis, subglobosis v. obovoideis, 20-25 μ. diam., 26 × 22, grosse echinulatis, tunica tenui, contentu aurantio; poris germinat. 7-8; teleutosoris hypophyllis, discretis, sparsis v. circinantibus, uredosoro junctis v. separatis, irregularibus. 1 mm. diam., subinde confluentibus, nigricantibus v. brunneo-atris; teleutosporis inæqualibus obovoideis v. rarius subglobosis, compressione angulosis, 22-28 × 20–22, tunica tenui, verrucosa, atro-brunnea.

Hab. in foliis Sophoræ flavescentis var. galegoidis in horto bot. Tokyo Japoniæ.

44. **Uromyces Pittierianus** P. Henn. Fungi costaricenses I, in Hedw. 1902, p. 101. — Maculis rufo-brunneis, rotundatis; soris hypophyllis sparsis ad marginem interdum gregariis, minutis, ca. 1 mm. diam., pulverulentis, pallidis; uredosporis subglobosis, ellipsoideis v. ovoideis, flavidis v. pallescentibus, 9-12 μ. diam., episporio flavo, subverrucoso; teleutosporis intermixtis oblonge clavatis v. fusoideis, apice haud incrassatis, obtusis, applanatis vel subacutiusculis, intus flavidis v. hyalinis 40 70 × 20–25, episporio tenui, levi, hyalino; pedicello plus minus elongato, 50 × 4, persistente hyalino. 875

Hab. in foliis Rubi prope Santa Maria de Dota Amer. centrale.

45. **Uromyces Rubi** Diet. et Holw. in Bot. Gaz. 1901, p. 327. — Maculis circularibus, circ. 5 mm. diam., raro confluentibus luteis; soris uredosporiferis et teleutosporiferis ellipticis, obovatis v. globosis 23-35 × 18-25, episporio hyalino spinuloso; teleutosporis ellipticis vel clavatis 26-35 × 17–24, episporio minuto hyalino; pedicello brevi. 876

Hab. in foliis Rubi, Cuernavaca, Mexico (C. G. Pringle).

46. **Uromyces crassivertex** Diet. in Bot. Jahrb. 1903, pag. 624. — Soris in pagina superiore foliorum, in circulos 5-15 mm. latos, irregulares laxe dispositis vel sparsis, in pagina inferiore singulis erumpentibus, præterea caulicolis, secus nervos foliorum et in caulibus haud raro confluentibus; soris uredosporiferis epidermide rupta cinctis, cinnamomeis; uredosporis ellipsoideis vel subglobosis 25-30 × 20-25, brunneis echinulatis, poris ca. 6 instructis; soris teleutosporiferis primo semitectis, deinde nudis, pulvinatis, minutis, atris; teleutosporis cuneatis, ovoideis vel subglobosis, basi plerumque attenuatis, apice tunicatis vel conoideis, rarius rotundatis 30-43 × 18–25, episporio levi superne usque 17 μ. incrassato castaneo, apice interdum dilutiore indutis. 877

Hab. in foliis Lychnidis Miquelianæ in prov. Musashi Japoniæ (Kusano).

47. **Uromyces Basellæ** Syd. in Oest. bot. Zeitschr. 1902, n. 5. — 878
Æcidiis amphigenis, maculis pallidis flavescentibus insidentibus, plerumque in greges rotundatos 2-5 mm. diam. laxe v. annulatim dispositis, minutis v. late ellipsoideis, subtiliter verruculosis, subhyalinis 22-27 μ. diam.; soris teleutosporiferis sparsis, minutis, punctiformibus, pulverulentis, obscure brunneis; teleutosporis ovatis, apice incrassatis (5-10 μ.), levibus, flavis, 30-40 × 22-27; pedicello hyalino, apice leniter colorato, crasso, teleutosporam æquante.

Hab. in foliis vivis Basellæ rubræ, Pisang Ins. Manillæ.

48. **Uromyces giganteus** Speg. Dec. Mycol. ital. n. 30, Trott. in Ann. 879
Mycol. 1904, n. 4, p. 360, c. ic. — Soris in caulibus compactis, sparsis, per epidermidem erumpentibus eaque fissa cinctis, crassissimis, obscure fuscis, 3 cm. usque longis, 1,5-2 cm. latis; uredosporis non visis; teleutosporis variabilibus, ovoideis vel subsphæroideis, quandoque (frequenter) clavatis vel cylindraceis, tunica crassiuscula vestitis, levibus, interne granulosis, fuligineis, 25-30 × 15-20, 28-30 × 18-22 vel sæpe 30-35 × 13-18, pedicello 90-100 × 5 rarius breviore, fusco vel pallide luteo v. hyalino præditis.

Hab. in caulibus emortuis vivis Schoberiæ (Suædæ) maritimæ in Campo Martio, Venetiis, 29 martio 1879. — Var. **erythræus** Trotter l. c. c. ic.: soris teleutosporiferis profundioribus; teleutosporis subglobosis v. ovoideis, 25-35 × 20-28, episporio pachydermo, sæpe inæqualiter crasso, vertice paullo crassiore; pedicello hyalino, brevi 15-20 μ., raro usque 90-100 μ. longo. — In caulibus vivis, hypertrophicis Suædæ fruticosæ, Scheik-Said Coloniæ erythrææ (Tellini). Observante cl. Trotter l. c., tam species quam var. notis datis ab *U. Chenopodii*, quocum sæpe *U. giganteus* jungebatur, distinctæ.

49. **Uromyces Celosiæ** Diet. et Holw. in Bot. Gaz. 1901, p. 326. — 880
Soris hypophyllis sæpe in maculis indistinctis, luteis insidentibus, sparsis vel congestis, epidermide velatis; soris uredosporiferis cinnamomeo-brunneis; uredosporis brunneis ellipticis vel globosis sæpe obovatis, 27-34 × 24-26, episporio crasso, spinuloso, poris germinationis 2; soris teleutosporiferis intense brunneis; teleutosporis elliptico-globosis, dense verrucosis, pallide brunneis, apice papillatis, 28-38 × 22-30; pedicello hyalino sporæ æquilongo vel paullo longiore, exili, fugaci.

Hab. in foliis Celosiæ latifoliæ, Oaxaca Mexico.

50. **Uromyces Deeringiæ** Syd. in Ann. Mycol. vol. I, n. 4, 1903, 881
p. 324. — Æcidiis hypophyllis, maculis rotundatis vel irregularibus interdum leniter incrassatulis, flavescentibus insidentibus, in greges irregulares laxe dispositis vel paucis tantum irregulariter laxeque associatis, cylindraceis margine parum inciso, tamen leniter recurvato; æcidiosporis angulato-globosis, verruculosis, hyalino-flavescentibus 22-28 μ. diam.; soris teleutosporiferis amphigenis, sparsis ut videtur (paucis tantum visis!) subinde juxta æcidia sitis, subpulverulentis, brunneis; teleutosporis ovatis vel ovato-oblongis, apice incrassatis, usque 8 μ., levibus, dilute flavo-brunneis, 30-42 × 19-26; pedicello hyalino, crasso, persistenti, usque 55 μ. longo.

Hab. in foliis Deeringiæ indicæ, in ins. Java et Luzon Philippinarum.

51. **Uromyces Saururi** P. Henn. Einige neue japan. Ured. III, in 882
Hedw. 1902, p. 19. — Maculis subrotundatis, gregariis, atro-fuscis, minutis; æcidiis hypophyllis sparsis punctiformibus, cupulatis, æcidiosporis subglobosis 15-25 × 15-20, hyalino-fuscidulis; soris teleutosporiferis hypophyllis sparsis, minutis, fuscis; teleutosporis ovoideis, apice plus minus incrassatis, obtusis v. applanatis, 20-28 × 15-22, episporio brunneo, levi; pedicello brevi clavato, brunneolo, 10 × 5-6.

Hab. in foliis Saururi Loureiri, Tosa Japoniæ.

52. **Uromyces Rickerianus** Arthur in Bull. of the Torr. bot. Club. 883
1902, pag. 227. — Æcidiis amphigenis, dense congestis; peridiis pallidis; æcidiosporis globosis vel oblongis, 16-22 × 18-26, minute verrucosis, fere levibus; soris teleutosporiferis cum æcidiis intermixtis, ellipticis, 4 mm. long., epidermide grisea tectis, dein pulverulentis, brunneo-nigris; teleutosporis intense brunneis, globosis vel oblongis vel irregularibus, 20-25 × 23-35, utrinque rotundatis, pedicello hyalino, fragili, brevissimo donatis.

Hab. in foliis Rumicis Geyeri, Teton Pass, Wy. Americæ borealis.

53. **Uromyces tingitanus** P. Henn. in Annuaire Conser. et Jard. bot. 884
Genève, 1903-1904, p. 243. — Maculis sanguineis rotundatis vel effusis; soris teleutosporiferis amphigenis, sparsis v. aggregatis, rotundato-pulvinatis, firmis, atro-castaneis usque ad 1½ mm. diam., interdum confluentibus; teleutosporis oblongo-ellipsoideis apice usque ad 10 μ. incrassatis, rotundatis v. papillatis, læte brunneis,

levibus, 20-38 × 17-22; pedicello valde elongato, persistenti, hyalino, usque ad 180 × 4-5.

Hab. in foliis vivis Rumicis tingitani Ain Sefra, Oran Africæ sept. (Hochreutiner). — Ab *U. Acetosæ*, cui affinis, differt sporis apice incrassatis et longe pedicellatis.

54. **Uromyces Fatouæ** P. Henn. Einige neue japan. Ured. III, in Hedw. 1902, p. 18. — Maculis nullis; soris uredosporiferis hypophyllis sparsis, minutis punctiformibus, diutius tectis; uredosporis subglobosis v. ellipsoideis 15–22 μ. diam., brunneis, asperatis; soris teleutosporiferis hypophyllis sparsis, minutis atrofuscis, subpulverulentis; teleutosporis ovoideis, pallidius papillatis, intus granulatis, castaneis, 25-35 × 20-25, pedicello hyalino 10-20 × 3-4. 885

Hab. in foliis Fatouæ pilosæ var. subcordatæ, Tosa Japoniæ.

55. **Uromyces Stenorrhynchi** P. Henn. F. Amaz. III, p. 399 (Hedw. 1904). — Maculis fuscidulis, rotundatis; soris hypophyllis gregariis, paginam inferiorem occupantibus, rotundato-pulvinatis, firmis, applanatis, atris, 0,3–1 mm. diam.; uredosporis intermixtis ovoideis vel subellipsoideis, læte brunneis vel fuscidulis, aculeato-echinatis 25-28 × 15-20; paraphysibus copiosis clavatis, membrana incrassatis, læte brunneis vel fuscis, 30-35 × 10; teleutosporis ovoideis, apice rotundatis, haud incrassatis ca. 20-30 × 12-18, episporio tenui, brunneo, levi, pedicello subclavato, hyalino-flavidulo, elongato, ca. 8-10 μ. crasso. 886

Hab. in foliis Stenorrhynchi sp. Yurimaguas Peru. — Notabilis species habitu potius *Melampsoræ*, soris firmis nigris, paraphysibus stipatis, teleutosporis rarioribus dignoscenda.

56. **Uromyces Microtidis** Cooke — Cfr. Sacc. Syll. VII, p. 519. — Syd. in Ann. Mycol. 1903, p. 324. — Uredosporis globosis, subglobosis, ovatis vel ellipsoideis, minute aculeato-verruculosis, flavo-brunneolis 22-30 × 17-25.

Hab. in foliis vivis Microtidis porrifoliæ, Chatham Island (Krull).

57. **Uromyces Ioffrini** Delacr. in Bull. Soc. Mycol. 1902, p. 284 c. ic. — Soris leviter bullatis mox apertis; uredosporis ovoideis, pedicellatis, levibus, fulvis, c. 30 × 24; paraphysibus 35–40 μ. long. apice incrassatis atque circ. 8-10 μ. cr.; teleutosporis fuscis, levibus, granulatis, c. 45 × 24, apiculo obtuso, subhyalino, 4-5 μ. alto ornatis. 887

Hab. in fructibus Vanillæ planifoliæ, Taiti.

58. **Uromyces reticulatus** (Thüm.) Bubák, Sitzungsber. Kgl. böhm. Ges. Wissensch. 1902, pag. 22 (extr.) f. 49-54, *Æcidium reticulatum* Thüm. — Syll. VII, pag. 830. — Maculis luteolis; pycnidiis epiphyllis vel inter æcidium in pag. inf. commixtis, melleo-luteis: æcidiis in maculis luteis, anguste oblongis congestis, luteis, initio pustuliformibus, dein breve cylindraceis, margine irregulariter lacerato recurvatoque, postremo libero; æcidiosporis valde irregularibus, globulosis, ovoideis vel oblongatis, plerumque polygonis, episporio tenui, minute verrucoso, 26,4-33 × 22-24,2; soris uredosporiferis minimis rotundis vel ellipsoideis, epiphyllis, epidermide tectis, teleutosporas etiamque continentibus; teleutosporis globosis vel ovoideis 22-30,8 × 19,8-24,2; soris teleutosporiferis rotundato-ellipticis, amphigenis, epidermide tectis, intense brunneis pulverulentis; teleutosporis globosis vel ovalibus v. ellipsoideo-oblongis 26,4-33 × 19,8-26,4, pallide castaneo-brunneis, episporio verrucosulo, crassiusculo, apice papilla hyalina conica ornatis; pedicello brevi, hyalino, fugaci. 888

Hab. in foliis Allii victorialis, Tirol, Kaprunerthal (Dietel I, II, III), in Hungaria (Spies II et III), in Sibiria (Martianoff I, II?, III).

59. **Uromyces Mac-Owani** Bubák, Sitzungsber. Kgl. böhm. Ges. Wissensch. 1902, p. 19, fig. 39-43. — Soris amphigenis minimis subrotundis in parvulos greges congestis, epidermide velatis, dein pulverulentis, pallide brunneis; teleutosporis rotundis, vel ovalibus vel piriformibus, sæpe angulosis 17,6-28,6 × 15,4-26,4, depressis, episporio crassiusculo donatis, luteo-brunneis, raro basi subconicis; pedicello hyalino, fugaci, sporæ æquilongo v. longiore. 889

Hab. in foliis Scillæ prasinæ prope Somerset East, Caput Bonæ Spei Africæ merid. (Mac Owan).

60. **Uromyces mogianensis** Bubák, Sitzungsber. Kgl. böhm. Ges. Wissensch., 1902, pag. 16, fig. 36-38. — Pycnidiis in maculis parvulis pallidis insidentibus, epiphyllis, raro hypophyllis, melleo-luteolis minimis; soris in maculis rotundatis insidentibus, sæpe amphigenis, circulatim dispositis rotundis, brunneo-nigris, pulverulentis; teleutosporis subrotundatis, raro ovoideis, episporio 6,6 µ. crasso donatis, 33-41,8 × 33-35,2 castaneo-brunneis, crasse verrucosis, papilla latiuscula hyalina apice ornatis; pedicello hyalino usque 20 µ. longo, fugaci. 890

Hab. in foliis Fritillariæ bucharicæ, in regione fl. Seravschan prope Mogiam Turkestaniæ (Komarow).

61. **Uromyces nyikensis** Syd. Ann. Mycol. 1904, p. 27. — Soris teleutosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, rotundatis v. oblongatis, ca. 0,4-1 mm. longis, interdum elongatis sublinearibusque, usque 2 mm. longis, epidermide plumbea semper tectis; teleutosporis variabilibus, subglobosis v. ovatis, sæpe angulatis, apice rotundatis, truncatis v. acutiusculis, mox vix incrassatis, mox magis incrassatis 2,5-6 μ., levibus, dilute brunneis 19-27 × 14-22, rarius usque 32 μ. longis, episporio tenui; pedicello hyalino, tenui, usque 30 μ. longo. 891

Hab. in foliis vivis Gladioli nyikensis, Nyika-Plateau Africæ (Whyte).

62. **Uromyces Sparaxidis** Syd. Ann. Mycol. 1904, pag. 27. — Soris uredosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, minutissimis, punctiformibus, aurantiaco-flavis; uredosporis globosis v. subglobosis, subtiliter verruculosis, hyalino-flavescentibus, 15,5-20 μ. diam.; soris teleutosporiferis amphigenis, sparsis, hinc inde paucis aggregatis, minutis, rotundatis vel oblongis, ca. 300-500 μ. longis, epidermide diu tectis, compactiusculis, atro-brunneis; teleutosporis variabilibus, plerumque ovatis v. angulato-ovatis, apice rotundatis, truncatis v. acutiusculis, incrassatis 4-8 μ., basi plerumque attenuatis, levibus, brunneis 19-28 × 14-20, episporio tenui; pedicello leniter brunneolo, tenui, persistenti, usque 30 μ. longo. 892

Hab. in foliis vivis Sparaxidis lineatæ, Natal (J. M. Wood).

63. **Uromyces Antholyzæ** Syd. Ann. Mycol. 1904, pag. 27. — Soris teleutosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, minutis, rotundatis v. subrotundatis, epidermide diu tectis, atro-brunneis, compactiusculis; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis v. obtuse attenuatis, incrassatis 4-7 μ. levibus, brunneis 21-30 × 14-22, episporio subtenui; pedicello flavidulo, persistenti, crassiusculo, usque 32 μ. longo. 893

Hab. in foliis Antholyzæ abyssinicæ in Abyssinia (Schimper).

64. **Uromyces Melasphærulæ** Syd. Ann. Mycol. 1904, p. 28. — Soris uredosporiferis amphigenis, maculis orbicularibus vel irregularibus, brunneolis, sæpe obsoletis insidentibus, sparsis, minutis, punctiformibus, rotundatis, dilute flavo-brunneolis v. flavis; uredosporis globosis vel ellipsoideis verruculosis, hyalino-flavescentibus 19-25 × 16-22, episporio 2-2,5 μ. crasso; soris teleutosporiferis con- 894

formibus, epidermide diutius tectis, obscure griseo-brunneis; teleutosporis regulariter globosis vel subglobosis, apice semper rotundatis, incrassatis 3-6 μ., levibus, brunneis, 22–26 × 19–24, episporio ca. 2 μ. crasso; pedicello brunneolo, usque 30 μ. longo.

Hab. in foliis Melasphærulæ gramineæ, Hopefield, in Capite Bonæ Spei (F. Bachmann).

65. **Uromyces tosensis** P. Henn. in Hedw. 1903 p. (107). — Maculis 895
fuscis, rotundatis; soris plerumque hypophyllis, interdum epiphyllis, sparsis; minutis, ferrugineis, epidermide fusco velatis; uredosporis subglobosis, ovoideis v. ellipsoideis 18–24 × 16-20, episporio fusco, aculeato-asperato; teleutosporis raro intermixtis, subglobosis v. ovoideis, apice haud incrassatis, 20–29 × 20-24, episporio fusco, aculeato; pedicello 15–20 × 3,5-4, hyalino fuscidulo.

Hab. in foliis Commelinæ communis, Sakawa-machi, Tosa Japoniæ (Yoshinaga).

66. **Uromyces atro-fuscus** Dudley et Thomps. in Journ. of Mycol. 896
1904, p. 55. — Amphigena; maculis parvulis, pallide luteis; soris subrotundatis vel breve ellipticis, sparsis vel congestis, non confluentibus paullo prominentibus, brunneo-nigris; uredosporis paucis ellipsoideis 16–17,5 × 25-26, crassiuscule tunicatis, echinulatis; poris germinationis æquatorialibus; teleutosporis intense brunneis, obovatis vel globosis, plus minusve utrinque rotundatis, angulosis 19–26 × 25–31, papillatis; pedicello hyalino spora duplo–triplo longiore, deciduo.

Hab. in foliis Caricis Douglasii prope Palmers, Mariposa County et in foliis C. ustæ Bear Valley, San Bernardino County in California.

67. **Uromyces chubutensis** Speg. Mycet. argent. ser. II, 1902, p. 60. 897
— Maculis nullis: acervulis epiphyllis, erumpenti-subsuperficialibus, nudis, nodulosis, compactis 3–5 × 0,5-1 mm., atro-cinnamomeis; teleutosporis versiformibus, ellipticis v. obvatis, 25–30 × 25, apice truncatis, obscure ferrugineis, levibus, pedicello gracili, recto 60-70 × 5-6, vix pallidiore donatis.

Hab. ad folia languentia Poæ chubutensis prope Carrenleofù in Argentinia.

68. **Uromyces Cynosuroidis** Henn. in Hedw. 1902, p. (211). — Ma- 898
culis fuscidulis, irregulariter explanatis; soris amphigenis, sparsis v. gregarie confluentibus, oblongis vel striiformibus, fusco-cinnamomeis, pulverulentis; uredosporis subglobosis v. ovoideis, brunneis 20–32 × 20-28, episporio dense aculeato-verrucoso, castaneo,

paraphysibus capituliformibus vel clavatis, obtuse rotundatis, brunneis 20-32 × 20-28, episporio dense aculeato-verrucoso, castaneo, paraphysibus capituliformibus v. clavatis, obtuse rotundatis, brunneolis, 30–40 × 14–17; teleutosporis oblonge ovoideis, apice incrassatis, verrucosis, brunneis 28-40 × 22-30; stipite usque 20 × 4–5 hyalino.

Hab. in foliis Eragrostidis cynosuroidis, Bassia. pr. Port Said Ægypti.

69. **Uromyces Microchloæ** Syd. Ann. Mycol. 1903, p. 15. — Soris 899
teleutosporiferis hypophyllis, minutissimis, ægre conspicuis, atro-brunneis; uredosporis globosis v. subglobosis, subtiliter echinulatis, flavidis 16-20 μ. diam.; teleutosporis globosis, subglobosis v. ellipsoideis, utrinque rotundatis, apice non incrassatis, levibus, brunneis 24-30 × 21-27, episporio æquabili crassitudine, ca. 2-2,5 μ. cr.; pedicello hyalino, apice leniter brunneolo, usque 30 μ. longo.

Hab. in foliis Microchloæ setaceæ, Seriba Ghattas Africæ centr. (G. Schweinfurth).

70. **Uromyces phyllachoroides** P. Henn. in Hedw. 1900, p. (129). — 900
Soris uredosporiferis amphigenis, sparsis, rotundatis vel oblongo pulvinatis, pallide brunneis, epidermide rupta cinctis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus aurantiacis v. brunneis 20–22 × 18–20, episporio aculeato, castaneo, paraphysibus longe clavatis, hyalinis, usque ad 40 × 5–6; soris teleutosporiferis amphigenis, gregariis, punctiformibus vel striiformibus, diutius tectis, dein epidermide atra fissa velatis; teleutosporis oblonge ovoideis, subpiriformibus, interdum ellipsoideis v. subfusoideis, apice plus minusve incrassatis, rotundatis v. subpapillatis, intus granulatis, brunneis episporio castaneo, levi v. subpunctulato 20-30 × 14-20, pedicello persistente hyalino v. flavo-fuscidulo 15–25 × 2–3.

Hab. in foliis Cynosuri elegantis, Bu-Quornen, Tunisia G. Schweinfurth).

71. **Uromyces Rottboelliæ** Arthur in Bull. of the Torr. bot. Club. 901
1902, p. 228, *Uredo Rottboelliæ* Diet. in Bot. Jahrb. 1902, p. 52. — Soris hypophyllis, oblongis, prominentibus, castaneo-brunneis, dein erumpentibus; uredosporis ovato-globosis 18-25 × 20-30, episporio 3 μ. crasso, aureo-brunneis, tuberculatis, poris 4 æquatorialibus, pedicello hyalino, delicatulo sporæ æquilongo, subpersistenti donatis; teleutosporis globosis, colore et magnitudine uredosporarum, episporio 2 μ. crasso, superne 8 μ. crassis, late subtruncatis,

inferne rotundatis, pedicello hyalino exili sporæ æquilongo, persistenti, donatis.

Hab. in foliis Rottboelliæ speciosæ, Jaunsar, Himalaya Indiæ (J. F. Duthie) (*Uromyces*) et in foliis Rottboelliæ compressæ var. japonicæ in horto botanico Tokyo Japoniæ (Kusano) (*Uredo*).

72. **Uromyces Parnassiæ** (DC.) Schroeter ap. Cooke Grevillea VII, p. 334, Plowright, Brit. Ured. and Ustilag. p. 128 (1899), *Uredo P.* DC., Fl. franç. VI, p. 68, *Uromyces Valerianæ* Auct. et Syll. VII, p. 536 ex p. — Æcidiis (*Æc. Parnassiæ* Grev.) hypophyllis in maculis pallidis in soros rotundos dispositis; pseudoperidiis fulvo-flavidis, suburceolatis, margine crassiusculo; sporis pallidis; uredosporis (*Trichobasis Parnassiæ* Cooke) sphæricis, rugulosis 20–25 μ. diam; teleutosoris amphigenis primo bullatis dein erumpentibus, sparsis sæpe confluentibus; teleutosporis subgloboso-ovoideis, brunneis, levibus, 25-30 × 20-22. 902

Hab. in foliis Parnassiæ palustris in Gallia et Britannia.

73. **Uromyces lupinicola** Bubák, Sitzungsber. Kgl. böhm. Ges. Wissensch., 1902, p. 8 (extr.) Ita vocandus *Urom. Lupini* Sacc. (1875) non Berk. et Curtis (1859), *Urom. Anthyllidis* Schröt. p. p., Hariot p. p., *Urom. Genistæ-tinctoriæ* Winter p. p., *Dicæoma Lupini* Hoffm. in schedis.

74. **Uromyces Valerianæ** (Schum.) Fuck. — Syll. VII, pag. 536. — Huc, teste Tranz., ducenda sunt *Urom. Prunellæ* Schroid. et *Uredo Parnassiæ* West. Exs. (nec Schröt.) species ex errore de matrice conditæ.

ENDOPHYLLUM Lév. — Syll. VII p. 767, XVI p. 322, 1118.

1. **Endophyllum singulare** Diet. et Holw. in Bot. Gaz. 1901, p. 336. — Soris caulicolis et foliicolis, conicis, usque 2 mm. longis, irregulariter erumpentibus; pseudoperidiis bene evolutis; sporis coacervatis ochraceis, ellipsoideis vel oblongis, apice sæpe acuminato 40–55 × 24–30; episporio pallide brunneo apice conspicue conico, dense verrucoso. 903

Hab. in Ericacea quadam, Jalisco, Mexico (M. E. Jones).

CLASTOPSORA P. Dietel in Ann. Mycol. 1904, p. 26 (Etym. *clao* rumpo, secedo et *psora* scabies). — Sori teleutosporiferi primum plani ceracei (ut in genere *Coleosporio*) maturi hemisphærici, pulverulenti, epidermide diu tecti, denique ea fissa cincti. Teleutosporæ

catenulatæ simplices. Catenæ sporarum immaturarum conglutinatæ, maturarum facile disjunctæ, fragiles.

1. **Clastopsora Komarowii** P. Diet. l. c. pag. 24, *Pucciniostele Clarkiana* Kom. et Tranz. — Syll. XVI, p. 321 — nec *Xenodochus Clarkianus* Barcl.

MELAMPSORA Cast. — Syll. VII pag. 586, IX p. 296, XI p. 183, XIV p. 287, XVI p. 1118 *).

1. **Melampsora Hirculi** Lindr. Myk. Mitth. V-X, 1902, p. 19 (Act. Soc. Faun. Flor. Fenn. v. XXII), *Melampsora Saxifragæ* Lindr. olim. — Uredosoris ut plurimum hypophyllis subrotundis, flavidis, minutis, maculis peculiaribus nullis; paraphysibus copiosis, hyalinis, clavatis vel capitatis, 40-60 × 20, membrana apice usque 5 μ. crass.; uredosporis ellipsoideis v. ovoideis, 18-25 × 14-19, pluriguttulatis, hyalinis, spinulosis; teleutosporis in crustas carneas dein atro-brunneas minutas aggregatis, hypophyllis et caulicolis ex stratu hymeniali flavido oriundis, oblongis ex compressione angulosis, sursum inæqualiter rotundatis, 30-40 × 8-12, membrana flavida, superne obscuriore. 904

   Hab. in foliis et caulibus Saxifragæ Hirculi in Fennia, Rossia et Helvetia.

2. **Melampsora Yoshinagai** P. Henn. in Hedw. 1905. pag. (108). — Maculis fuscidulis rotundatis v. explanatis, uredosporis hypophyllis, sparsis vel gregariis, minutis, rotundato-applanatis, ceraceis, pallide fuscidulis; uredosporis ovoideis vel ellipsoideis, hyalinis, dense verrucosis, 15-22 × 12-15; paraphysibus clavatis, hyalinis, 20-40 × 10-20. 905

   Hab. in foliis Wikstrœmiæ japonicæ, Mt. Yokogura, Tosa Japoniæ (Yoshinaga).

3. **Melampsora argentiniensis** Speg. Myc. Arg. ser. I. in Ann. Soc. Cient. Arg. 1899, p. 266. — Maculis nullis v. partis infectæ obsoletissime pallescentibus; soris amphigenis, quandoque sparsis, quandoque circinantibus, minutis, 0,25-0,50 mm. diam.; uredosporicis erumpenti-prominulis, pulverulentis e rufo aurantiacis; teleutosporicis applanatis, subsclerotiaceis, innatis; uredosporis globosis, 906

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*) Plures species novas, præcipue ob notas heterœciæ distinguendas, tam *Melampsoræ* quam aliarum Uredinearum, illustravit cl. H. Klebahn, quarum elenchus additur in calce familiæ præsentis.

20-25 μ. diam., episporio tenui dense minuteque papilloso vestitis, grosse 1-guttulatis, rufo-fumosis; teleutosporis subcylindraceis, 60-80 × 10-15, levibus apice truncatis, episporio antice incrassato atque infuscato vestitis.

Hab. in foliis, petiolis caulibusque vivis Crotonis hirti pr. Cordoba Argentiniæ. — *Mel. Helioscopiæ* (Pers.) Cast. peraffinis sed notis plurimis, ut videtur, sat distincta.

4. **Melampsora microsora** Diet. in Bot. Jahrb. 1902, p. 50. — Soris 907
uredo- et teleutosporiferis minutissimis, nudis oculis singulis vix conspicuis, hypophyllis; uredosporis ellipsoideis, echinulatis, 15-20 × 13-17; paraphysibus capitatis vel clavatis intermixtis; teleutosporis cuneato-prismaticis, 20-35 × 10-18, apice vix incrassatis, brunneis.

Hab. in foliis Salicis nipponicæ prope Tokyo Japoniæ (Kusano).

5. **Melampsora humilis** Diet. in Bot. Jahrb. 1902, pag. 50. — Soris 908
uredosporiferis in maculis flavidulis, fuscis v. violaceo-rubiginosis, hypophyllis, singulis etiam epiphyllis, sparsis v. in acervulos circulares, semicirculares irregularesve dispositis, minutis, aureis; uredosporis ellipsoideis v. obovatis, verrucosis, 17-20 × 12-19; paraphysibus capitatis, superne usque 22 μ. latis, intermixtis; soris teleutosporiferis hypophyllis in maculis nigricantibus v. arescentibus, sparsis v. dense confertis, planiusculis, nigris, epidermide tectis; teleutosporis cuneatis v. subcubicis, 13-25 × 6-15, episporio tenui, apice haud incrassato præditis.

Hab. in foliis Salicis multinervis, Tokyo Japoniæ (Miyoshi et Kusano).

6. **Melampsora epiphylla** Diet. in Bot. Jahrb. 1902, p. 50. — Soris 909
uredosporiferis in maculis melleis hypophyllis, minutissimis, sparsis; uredosporis ellipsoideis vel subglobosis, 12-15 × 11-13, echinulatis, aurantiacis; paraphysibus clavatis intermixtis; soris teleutosporiferis epiphyllis, sub cuticula orientibus, sparsis vel sæpe confertis, atro-fuscis; teleutosporis prismaticis vel cuneatis, apice modice incrassatis, 30-45 × 7-13.

Hab. in foliis Salicis Shikokianæ, Nikko Jap. (Kusano).

7. **Melampsora coleosporioides** Diet. in Bot. Jahrb. 1902, p. 50. — 910
Soris uredosporiferis in pagina inferiori foliorum dispersis, minutis, aureis; uredosporis obovatis vel piriformibus, 20-27 × 13-20, echinulatis; paraphysibus capitatis, superne 14-20 μ. latis intermixtis; soris teleutosporiferis amphigenis, minutis, sæpe confertis, flavo-rufis; teleutosporis prismaticis, 20-35 × 7-13.

Hab. in foliis Salicis babylonicæ, prope Tokyo, Japoniæ (Kusano).

8. **Melampsora Allii-populina** Kleb. in Zeitschr. f. Pflanzenkrankh. 1902, 911
XII, pag. 22 c. ic. — Cæomosporis in foliis *Allii ascalonici* etc. in maculis flavicantibus, in soros 1 mm. lat. confertis, globoso-ovoideis, subinde polygoniis, 17–23 × 14–19, minute verrucosis, aurantiis; pycnidiis pustulas prominulas formantibus, 140 × 100; uredosoris in pag. inf. *Populorum* vix 1 mm. diam. pulvinatis, rubro-aurantiis, epidermide cinctis; uredosporis oblongis v. ovato-clavulatis, 24–38 × 11–18, laxe muriculatis; paraphysibus, clavatis, 14-22 × 3-5; teleutosoris hypophyllis subcutaneis $^1/_4$-1 mm. diam., atro-brunneis, opacis; teleutosporis irregulariter prismaticis utrinque rotundatis, 35–60 × 6–10, membrana 1-1,5 μ. cr., brunnea.

Hab. I in foliis Alii ascalonici, II, III in foliis Populi nigræ, P. canadensis et P. balsamiferæ, Triglitz in Germania (Jaap).

9. **Melampsora Allii-Salicis albæ** Kleb. in Zeitschr. f. Pflanzenkrankh. 912
1902, XII, pag. 19 c. icon. — Cæomosporis in foliis caulibusque Alliorum in soros vivide aurantios aggregatis, in maculis flavidis sitis, 1 mm. diam. epidermide cinctis irregularibus sæpe polygoniis et isodiametris, 17-26 × 15-18, membrana 1-1,5 μ. cr., minute verruculosa; pycnidiis depresse pustulatis 210 × 120; uredosporis obovato-clavatis laxe muriculatis 24-30 × 11–14, aurantiis; teleutosporis epidermide tectis brunneis cylindraceis, stipatis, tenui-tunicatis, 35–50 × 6–8.

Hab. I in foliis Allii vinealis, Schœnoprasi, ursini, Porri, II, III in foliis Salicis albæ in Germania.

10. **Melampsora Abietis-Caprearum** Tubeuf, in Centr. f. Bakter. 1902, 913
II Abt., IX, pag. 241. — Cæomosporis (*Cæoma Abietis-pectinatæ* Rees) in *Abiete pectinata;* uredo- et teleutosporis in foliis *Salicis capreæ.*

Hab. in matricibus indicatis in Germania. — An sit morphologice diversa a *M. Laricis-Caprearum* Kl. non constat, teste Kleb.

MELAMPSORELLA Schröt. — Syll. VII p. 596.

1. **Melampsorella Blechni** Syd. Ann. Mycol. 1903, p. 537. — Soris 914
uredosporiferis hypophyllis, maculis indeterminatis, magnam pinnularum partem vel totam pinnulam occupantibus, in vivo flavidis exsiccando brunneis insidentibus, sub epidermide evolutis, pseudoperidio tandem apice minute aperto inclusis, flavidis, aparaphy-

satis; uredosporis ovoideis, ellipsoideis v. ovoideo-oblongis, hyalinis convexo-echinulatis, 27-42 ≈ 18-24, poris germ. nullis; teleutosporis intercellularibus in cellulas plures divisis, hyalinis.

Hab. in frondibus Blechni Spicant, pluribus locis ad montem Grosser Winterberg Saxoniæ.

2. **Melampsorella Dieteliana** Syd. Ann. Mycol. 1903, p. 537. — Soris 915
uredosporiferis hypophyllis, maculis indeterminatis flavo-brunneis v. sæpius atro-brunneis insidentibus, sub epidermide evolutis, pseudoperidio tandem apice minute aperto inclusis, flavidis, aparaphysatis; uredosporis variabilibus, plerumque ovoideis vel oblongis, raro subglobosis, hyalinis, echinulatis, 25-48 ≈ 18-30, poris germ. nullis; teleutosporis intracellularibus (ut videtur, paucis tantum visis) in cellulas plures divisis, hyalinis.

Hab. in frondibus Polypodii vulgaris, pluribus locis, ad montem Grosser Winterberg, præcipue pr. Schmilka Saxoniæ. — Præcipue maculis matricis valde atris a *M. Blechni* distinguitur.

3. **Melampsorella Feurichii** Magnus in Berichte d. Deut. Bot. Gesell. 916
1902, pag. 609, t. XXVII (absque diagnosi). — Subepidermica, erumpens; uredosporis hyalinis brevissime stipitatis, poris germinaticis nullis præditis, oblongo-piriformibus, deorsum attenuatis v. ovoideis, 28 ≈ 19, paraphysibus clavatis circumdatis.

Hab. in foliis Asplenii septentrionalis in Lusatia sup. Saxoniæ (G. Feurich).

4. **Melampsorella Kriegeriana** P. Magn. Bar. II. G. B. 1901, p. 581, 917
tab. 33 (absque diagnosi). — Teleutosporis in cellulis epidermicis, intracellularibus, hypophyllis, globoso-oblongis, 1-pluricellularibus; uredosporis ovato-ellipsoideis, verruculosis, subcutaneo-erumpentibus.

Hab. in frondibus Aspidii spinulosi, in Helvetia Saxonica.

PHACOPSORA Diet. — Syll. XIV p. 289, XVI p. 270.

1. **Phacopsora (?) Kraunhiæ** Diet. in Hedw. 1902, p. (178). — Ure- 918
dosporis obovatis v. ellipsoideis, flavescentibus, echinulatis, 20-24 ≈ 15-18; soris teleutosporiferis hypophyllis, minimis, sparsis v. confertim dispositis in maculis brunneis vel atro-purpureis vel sine maculis, primo epidermide castanea tectis, deinde eam erumpentibus, griseis (in sicco tantum?); teleutosporis valde irregularibus, interdum clavatis vel fusiformibus vel cylindraceis, usque 25 μ.

longis, 8-13 μ. latis, episporio tenui incolorato, vestitis, statim germinantibus.

Hab. in foliis Kraunhiæ floribundæ, Tokio Japoniæ (Nishida).

HYALOPSORA P. Magn. in Ber. der D. B. G. 1901, p. 582, absque diagnosi. (Etym. *hyalos* vitrum et *psora* scabies). — A genere *Melampsorella* differt, quoad uredosporas, ut *Schröteriaster* a *Phacopsora*.

1. **Hyalopsora Polypodii** (Pers.) P. Magn. l. c. — Huc ducenda est *Uredo Polypodii* Pers. e. p. — Syll. VII p. 857. — In Cystopteride fragili.
2. **Hyalopsora Polypodii-Dryopteridis** (Moug. et Nest) P. Magn. Hedw. 1902, pag. (224). — Ita nominanda *Uredo Aspidiotus* Peck: cfr. Syll. VII p. 858 et XI p. 228, seu *Hyalopsora Aspidiotus* (Peck) Magn. Bericht. Deutsch. Bot. Gesell. 1901, p. 582.
3. **Hyalopsora Adianti-Capilli-Veneris** (DC.) Syd. Ann. Mycol. 1903, 919
pag. 248, *Uredo Polypodii* γ ? *Adianti Capilli-Veneris* DC. in Fl. franç. VI, p. 81 (1815). — Soris uredosporiferis hypophyllis, in epiphyllo maculas plerumque angustas lineares efformantibus, minutis, ellipticis, secus nervos distributis, aurantiacis; uredosporis tenuiter tunicatis globosis, subglobosis, ellipsoideis vel angulato-ellipsoideis, punctatis, intus aurantiacis, 20-34 × 16-25, poris germinationis præditis; paraphysibus clavatis præsentibus; teleutosporis intracellularibus, 1-vel pluricellularibus, hyalinis, 8-11 μ. diam., membrana tenui.

Hab. in foliis Adianti Capilli-Veneris ad ripas fluminis Isonzo Istriæ (L. Gorz), Vittorio Veneto (Bérenger).

ZAGHOUANIA Pat. in Bull. soc. myc. de France 1901, p. 185 et 1902, p. 23. — Syll. XVI pag. 1120. — Sori erumpentes, subpulverulenti; pseudoperidia nulla; uredosporæ pedicellatæ, solitariæ. Teleutosporæ (probasidia) unicellulares, ovoideæ, episporio hyalino, paullo incrassato, pedicellatæ, e quibus mox germinantibus promycelium (protobasidium) quadricellulare semiinternum, sporidiola sessilia gerens, oritur.

1. **Zaghouania Phillyreæ** Pat. in Bull. Soc. Myc. de Fr. 1901, p. 185 920
et 1902, pag. 23 cum icon., *Uredo Phillyreæ* Cooke — Syll. VII p. 856, *Æcidium Phillyreæ* DC. — Syll. VII p. 847 — *Cæoma Phillyreæ* Thüm. et Bagn. — Æcidiis plerumque numerosis, dense confertis, semiimmersis, bullas in foliis v. plagulas in ramis effor-

mantibus vel juvenilia tota deformantibus; pseudoperidiis paullulum introrsum incurvis; æcidiosporis versiformibus, sphæroideis, oblongo-piriformibus vel sæpius ovoideis, 20-30 × 14-18, episporio hyalino, alveolato-reticulato, contentu guttulis oleosis, luteo-aurantiacis farcto; pycnidiis lageniformibus penicillo ostiolari valde evoluto, hyalino, sporulis ovoideis, 4-5 × 2-3 hyalinis; soris uredosporiferis hypophyllis plerumque in maculis luteis vel lutescentibus fere solitariis seu gregariis, luteo-aurantiacis, primo epidermide tectis, demum liberis; uredosporis globosis vel ovoideis, 24-32 × 12-16, episporio hyalino, echinulato, contentu oleoso, luteo-aurantiaco; teleutosporis (probasidiis) uredosporis immixtis, episporio crassiusculo, hyalino, verruculoso, oblongo-ovoideis; promycelio (protobasidio), sporidiola subglobosa, 12-14 μ. diam., levia, sessilia, efformante.

Hab. pycnidia et æcidia in juvenilibus ramis foliisque, uredosporæ et teleutosporæ in foliis adultis Phillyreæ mediæ, latifoliæ, angustifoliæ in Tunisia (Patouillard), Corsica (P. Dumée et R. Maire), Algeria (Trabut), Britannia (Cooke), Italia (Bagnis et D. Sacc.), Austria (Sydow) et Germania.

UREDINOPSIS P. Magn. — Syll. XI pag. 230, XIV pag. 290, XVI p. 271. — Teste cl. Plowright in Trans. Brit. Mycol. Soc. 1898-1899, p. 98, genus *Uredinopsis* Magnus cum anteriore *Milesia* cl. Buchana White collidit. Cfr. Syll. VII pag. 768. Nomen *Milesia* illustri Miles Josepho Berkeley est dedicatum.

1. **Uredinopsis americana** Syd. in Ann. Mycol. vol. I, 1903, p. 325. 921
— Soris uredosporiferis hypophyllis, minutis, plus minusve irregulariter sparsis, pseudoperidio dein fisso cinctis, flavis; uredosporis fusiformibus, apice in mucronem brevem vel elongatum acutum abeuntibus, 35-50 × 11-16, membrana hyalina, tenui, striolato-verruculosis; soris teleutosporarum unicellularum hypophyllis, minutis, hemisphæricis, diu peridio inclusis; teleutosporis unicellularibus (v. uredosporis crassius tunicatis?) subpolyhedricis, 22-32 × 15-22, pallide brunneolis, subtiliter verruculosis, ad marginem in angulos exeuntibus membrana ibique incrassata; pedicello plus minusve longo, deciduo; teleutosporis entoparenchymaticis 2-4-cellularibus, paucis tantum visis.

Hab. in foliis vivis Onocleæ sensibilis, Weston in Massachusetts Americæ bor. (H. M. Noyes et A. B. Seymour).

2. **Uredinopsis Atkinsonii** P. Magn. in Hedw. 1904, p. 123, tab. II, 922

fig. 1-7 (absque diagnosi). — Soris hypophyllis, subepidermicis, pseudoperidio cinctis; uredosporis suboblongis, sæpe tenuiter mucronatis, subinde muticis in eodem soro, 42 × 13 (muticis 26 × 14); teleutosporis in parenchymate nidulantibus, amphigenis, bi-quadricellularibus, ellipsoideis.

Hab. in foliis Aspidii Thelypteridis, Cayga Lake, Ithaca, Amer. bor. (Atkinson).

3. **Uredinopsis Copelandi** Syd. Ann. Mycol. 1904, pag. 30. — Soris 923
uredosporiferis hypophyllis, plus minusve sparsis, minutis, pseudoperidio dein fisso cinctis, dilute brunneis; uredosporis fusiformibus, apice breviter acutiusculis, rarius in mucronem elongatum acutum abeuntibus, 33-44 × 10-13, membrana hyalina, tenui, una serie aculeorum brevium obsessis; soris teleutosporarum unicellularium hypophyllis, minutis, hemisphæricis, diu peridio inclusis, brunneis; teleutosporis 1 cellularibus (vel uredosporis crassius tunicatis?) plerumque polyhedricis, 19-26 × 13-20, subtiliter verruculosis, ad marginem in angulos exeuntibus, ibique membrana incrassata hyalina; teleutosporis entoparenchymaticis, 2-4-cellularibus.

Hab. in frondibus vivis Athyrii cyclosori, Sisson Californiæ (E. B. Copeland).

4. **Uredinopsis Osmundæ** P. Magn. in Hedw. p. 123, t. II, f. 8-16 924
(absque diagnosi). — Soris hypophyllis majusculis, pseudoperidio et paraphysibus cinctis; uredosporis brevius vel longius mucronatis vel muticis, 42 × 13 (mucronatis); teleutosporis 2–8 v. pluricellularibus, globulosis v. irregulariter ellipsoideis.

Hab. in foliis Osmundæ cinnamomeæ, Cajuga Lake, Ithaca, Amer. bor.

5. **Uredinopsis Corchoropsidis** Diet. in Bot. Jahrb. 1903, p. 628. — 925
Soris uredosporiferis minimis, nudo oculo inconspicuis, sparsis; pseudoperidio tenerrimo, diu clauso, paraphysibus arcuatis composito inclusis; uredosporis obovatis vel ellipsoideis, episporio incolorato echinulato præditis, sine poris, 17-23 × 10-17; teleutosporis in parenchymate plantæ nutricis irregulariter dispersis v. in acervulos laxe congestis, subglobosis vel oblongis, plerumque bi-vel 1-cellularibus, 12-24 μ. diam., episporio levi, dilute flavescenti indutis.

Hab. in foliis Corchoropsidis crenatæ, in Monte Amagi Japoniæ (Nambu).

Sect. 2. Didymosporæ.

GYMNOSPORANGIUM Hedw. — Syll. VII pag. 737, IX p. 314, XI p. 205, XVI p. 314.

1. **Gymnosporangium aurantiacum** Syd. Ann. Mycol. 1904, p. 28. — 926
Soris teleutosporiferis foliicolis, sparsis, solitariis, vix hinc inde confluentibus, 0,7-1,5 mm. diam., pulverulento-mollibus vix gelatinosis, amœne aurantiacis; teleutosporis continuis v. 1-5-septatis, subglobosis usque oblongo-clavatis, apice plerumque rotundatis, ad septa leniter constrictis, 25-85 × 17-26, granulis numerosissimis, aurantiacis repletis; pedicello filiformi, hyalino, 200-350 μ. longo, in aqua tandem valde intumescente et usque 25 μ. crasso.

Hab. in foliis vivis Libocedri decurrentis, Mt. Eddy, Siskiyon Co., California (E. B. Copeland).

2. **Gymnosporangium gracile** Pat. Champ. Algero-Tunisien. in Bull. 927
Soc. Myc. de France T. XVIII, fasc. I (1902). — Soris erumpentibus, parvulas columnas cylindraceas formantibus, sparsis, acutis, ochraceo-rubris, mollibus simplicibus, raro summitate incisis, 2-4 mm. long., 1 mm. latis; teleutosporis nunc oblongato-lanceolatis, 60-80 × 12-15, utrinque attenuatis, subhyalinis, 1-septatis, subinde 2-septatis, ad septa constrictis, nunc brevioribus et latioribus, 50-60 × 18, apice rotundatis, crassius tunicatis et brunneolis.

Hab. in ramulis Juniperi Oxycedri in montanis, Aurès Africæ bor. — Species soris per ramulos non deformatos, ubique effusis breviter cylindraceis gracilibus sporisque lanceolatis, sæpe bi-septatis, mox dignoscenda.

3. **Gymnosporangium Nelsonii** Arthur in Bull. Torr. Bot. Cl. 1901, 928
p. 665. — Soris plerumque solitariis, raro congestis, globosis, pulvinato-cinnamomeo-brunneis, 1-2 mm. diam.; teleutosporis ellipticis vel anguloso-ellipticis, 22-26 × 41-52, obtusis, ad septa non constrictis, utrinque constrictis; pedicello filiformi, firmo, hyalino, 30-90 μ. longo.

Hab. in foliis Juniperi scopulorum, Sargent, Laramie Hills, Wyoming, Amer. bor.

4. **Gymnosporangium Oxycedri** Bres. Fungi Lusitanici in Broteria 929
1903, vol. II, p. 88. — Soris teleutosporiferis cartilagineo-gelatinosis, erumpentibus, gregariis, solitariis v. raro 2-3 connatis, verticalibus, conicis vel subcylindraceis, angulatis vel compressis, apice ut plurimum subcapitatis, ex aurantiaco fuscescentibus, 2-4 mm.

altis, basi 1-1,5 mm. cr.; teleutosporis aurantiacis, oblongo-subellipsoideis vel subfusiformibus, 1-septatis, ad septa vix constrictis, 40-45 × 18-21, rarissime 24 μ.; pedicello longissimo, hyalino, æquali, 5-6 μ. cr.

Hab. ad ramos Juniperi Oxycedri, in Lusitania. — *Gymnosporangio Sabinæ* proximum, a quo soris duplo minoribus et sporis strictioribus præcipue diversum.

PUCCINIA Pers. — Syll. VII p. 600, IX p. 298, XI p. 184, XIV p. 292, XVI p. 273. — *Jackya* Bub. Oest. bot. Zeitschr. 1902, p. 42 (pro *Pucc. Cirsii-lanceolati* Schröt. et *Pucc. Cirsii-eriophori* Jacky).

1. **Puccinia expansa** Link, Spec. pl. VI, 2, pag. 75 (1825) — Syd. 930
Mon. Ured. vol. I, p. 146: cfr. Sacc. Syll. VII p. 667, n. 2313 ex parte. — Soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis flavescentibus v. brunneolis orbicularibus insidentibus, in greges orbiculares v. rarius irregulares, $^1/_2$-$^3/_4$ cm. latos, densissime confertis confluentibusque, atro-brunneis; teleutosporis ovatis vel late ellipsoideis, utrinque late rotundatis, apice papilla minuta dilutiore instructis, medio non v. vix constrictis, levibus, brunneis, 30-40 × 19-30; pedicello brevissimo, hyalino.

Hab. in foliis petiolisque vivis Adenostylis albifrontis, alpinæ, Senecionis aquatici, S. cordati, S. Doronici, S. subalpini, in Austria, Hungaria, Helvetia, Italia, Hollandia, Britannia; in foliis Senecionis lugentis in California (Holway).

2. **Puccinia Vernoniæ** Schw. Syn. N. Ann. Fr. n. 2926 (1831) Syd. 931
Mon. Ured. vol. I, p. 178. — Soris teleutosporiferis plerumque hypophyllis, maculis minutis flavescentibus vel purpureis, sæpe obsoletis insidentibus, sparsis, hinc inde confluentibus, minutis, subrotundatis, mox nudis, pulverulentis, atro-brunneis; uredosporis plerumque immixtis globosis v. subglobosis, echinulatis, flavis 24-27 μ. diam.; teleutosporis oblongo-ellipsoideis, plerumque utrinque rotundatis, apice leniter incrassatis, medio non v. vix constrictis, intus granulosis, brunneis, 32-44 × 20-25; pedicello hyalino, usque 120 μ. longo, sed deciduo.

Hab. in foliis vivis Vernoniæ Baldwinii, fasciculatæ, noveboracensis in America bor.

3. **Puccinia oaxacana** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 331 932
Sacc. Syll. XVI p. 1120 (nomen). — Syd. Mon. Ured. vol. I, p. 24, t. II, f. 21. — Soris teleutosporiferis hypophyllis, maculis minutis fuscis, plerumque insidentibus, sparsis minutis, compactiu-

sculis, brunneis; uredosporis immixtis subglobosis, ellipsoideis vel ovatis, echinulatis, flavidis, 22-29 ≈ 20-23; teleutosporis oblongo-ellipsoideis v. oblongis, apice rotundatis, non vel vix incrassatis, medio leniter constrictis, basi rotundatis vel attenuatis, levibus, pallide brunneis, 32-50 ≈ 16-25, episporio tenuissimo; pedicello hyalino, persistenti, sporam æquante vel eam parum superante.

Hab. in foliis vivis Baccharidis hirtellæ, Oaxaca Mexico (Holway).

4. **Puccinia Baccharidis-hirtellæ** Diet. et Holw. Bot. Gaz. XXI, 1901, 933
p. 331, Sacc. Syll. XVI pag. 1119 (nomen). — Syd. Mon. Ured. vol. I, p. 23, t. II, f. 20. — Soris teleutosporiferis hypophyllis, maculis irregularibus minutis fuscis, plerumque insidentibus, sparsis, minutis, compactiusculis, castaneo-brunneis, uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, pallide flavo-brunneis, 20-27 ≈ 18-25; teleutosporis ellipsoideis, utrinque rotundatis, apice non vel lenissime incrassatis, medio leniter constrictis, subtiliter punctatis, dilute brunneis, 32-46 ≈ 20-30; pedicello hyalino, tenui, usque 50 µ. longo, fragili.

Hab. in foliis vivis Baccharidis hirtellæ, Amecameca, Mexico (Holway).

5. **Puccinia Baccharidis-multifloræ** Diet. et Holw. Bot. Gaz. XXXI, 934
1901, p. 331, Syd. Mon. Ured. vol. I, pag. 24, t. II, fig. 22. — Soris uredosporiferis plerumque hypophyllis, sine maculis, sparsis, minutis, dilute castaneis; uredosporis ellipsoideis vel ovatis, echinulatis, flavo-brunneis, apice cucullato-incrassatis, usque 7 µ. cr., 30-42 ≈ 22-28; soris teleutosporiferis conformibus, pulverulento-compactiusculis, atro-brunneis; teleutosporis oblongis, apice rotundatis vel conico-attenuatis, valde incrassatis, usque 10 µ., medio leniter constrictis, basi rotundatis vel sæpius attenuatis, levibus, flavo-brunneis, 38-60 ≈ 21-30; pedicello hyalino, fragili, usque 60 µ. longo.

Hab. in foliis vivis Baccharidis multifloræ, Amecameca, Mexico (Holway).

6. **Puccinia cæomatiformis** Lagh. in Syd. Mon. Ured. vol. I, p. 24, 935
t. II, f. 24. — Soris teleutosporiferis amphigenis, maculis orbicularibus v. irregularibus brunneis, ca. 2-3 mm. latis, subinde confluentibus, insidentibus, plerumque sparsis vel hinc inde paucis aggregatis, rotundatis v. irregularibus, verruciformibus, majusculis, ca. 1-2,5 mm. diam., compactis, cæomatiformibus, pallidis; teleutosporis clavatis, apice rotundatis v. truncatis, incrassatis usque

8 μ., medio constrictis, deorsum attenuatis, levibus flavidis, 70–135 × 25-40; pedicello hyalino, apice valde inflato et usque 28 μ. lato, deorsum sensim attenuato, longissimo, usque 140 μ. longo, persistenti.

Hab. in foliis vivis Baccharidis spec. pr. Quito Æquatoriæ (Lagerheim).

7. **Puccinia subglobosa** Diet. et Holw. in Bot. Gaz. XXXI, 1901, p. 332. — Syd. Mon. Ured. vol. I, p. 181, t. X, f. 158. — Soris uredosporiferis amphigenis, plerumque hypophyllis, maculis indeterminatis, pallescentibus insidentibus, sparsis, minutissimis, punctiformibus, pulverulentis, castaneo-brunneis; uredosporis globosis, ellipsoideis vel ovatis, echinulatis, flavo-brunneis, 18-25 × 10-22; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, interdum subglobosis, utrinque rotundatis, apice non v. vix lenissime incrassatis, medio non v. vix constrictis, levibus, obscure castaneo-brunneis, subopacis, 28-40 × 24-30; pedicello hyalino, sursum leniter incrassato, interdum obliquo, usque 55 μ. longo, subpersistenti. 936

Hab. in foliis vivis Viguieræ Palmeri, Mexico (Holway).

8. **Puccinia punctoidea** Syd. Mon. Ured. vol. I, pag. 182, tab. XI, fig. 159. — Soris teleutosporiferis plerumque epiphyllis, sine maculis, sparsis, punctiformibus, minutis, ca. 500-650 μ. diam., pulverulentis, atris; teleutosporis ellipsoideis v. ellipsoideo-oblongis, utrinque rotundatis, apice non incrassatis, medio plerumque leniter constrictis, levibus, brunneis, 35-46 × 18-25; pedicello hyalino, brevi, deciduo. 937

Hab. in foliis vivis Viguieræ Pringlii pr. Zapotlan, Mexico (Pringle).

9. **Puccinia nanomitra** Syd. Mon. Ured. vol. I, p. 182, t. XI, f. 160. — Soris teleutosporiferis amphigenis, præsertim epiphyllis, sine maculis, sparsis, minutissimis, punctiformibus, pulverulentis, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice papillula humili dilutiore auctis, medio non constrictis, verruculosis, atro-brunneis, opacis, 32-42 × 25-32, episporio ca. 3 μ. crasso; pedicello hyalino, crasso, flexuoso, persistenti, usque 80 μ. longo. 938

Hab. in foliis vivis Viguieræ dentatæ, Oaxaca, Mexico (Holway).

10. **Puccinia inopinata** Syd. Mon. Ured. vol. I, pag. 183, tab. XI, f. 101. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, ca. 500 μ. diam., compactis, atro-brunneis; teleutosporis 939

oblongis vel oblongo-clavatis, apice rotundatis, valde incrassatis, 8-14 μ., medio plerumque leniter constrictis, basi rotundatis vel attenuatis, levibus, dilute brunneis, apice pallidioribus, 32-54 × 16-27; pedicello hyalino, persistenti, crassiusculo, usque 70 μ. longo.

Hab. in foliis vivis Viguieræ stenophyllæ var. discoideæ, Cordoba, Argentina (Lorentz).

11. **Puccinia Ximenesiæ** Long in Bull. Torr. Bot. Cl. 1902, p. 114, t. 5. — Syd. Mon. Ured. vol. I, p. 173. — Soris teleutosporiferis amphigenis, sine maculis, sparsis, rotundatis, ca. ½-1 mm. diam., subpulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 24-32 × 20-27; teleutosporis late ellipsoideis, utrinque rotundatis, apice papilla lata humili instructis, medio non vel vix constrictis, levibus, atro-castaneis, opacis, 30-44 × 25-32; pedicello subhyalino, crasso, persistenti, sporam subæquante. 940

Hab. in foliis Verbesinæ (Ximenesiæ) encelioidis, Austin, Texas Americæ bor. (Long, W. L. Bray).

12. **Puccinia affinis** Syd. Mon. Ured. vol. I, p. 174, t. X, fig. 151. — Soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, in epiphyllo sæpe perfecte annulatim dispositis, interdum confluentibus, minutis v. mediocribus, ½-3 mm. diam., primitus epidermide tectis, pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 20-27 μ. diam.; teleutosporis globosis, subglobosis vel late ellipsoideis, utrinque rotundatis, apice papilla dilutiore plana instructis, medio non constrictis, levibus, atro-brunneis, 32-46 × 27-36; pedicello hyalino, flexuoso, crasso, persistenti, usque 110 μ. longo. 941

Hab. in foliis vivis Verbesinæ trilobatæ, Oaxaca, Mexico (Holway).

13. **Puccinia cognata** Syd. Mon. Ured. vol. I, p. 172, t. X, f. 149, *Puccinia similis* Long in Bull. Torr. Bot. Cl. 1902, p. 114, f. 4 nec Ellis et Ev. — Æcidiis hypophyllis, irrgulariter sparsis, albis, margine lacerato; æcidiosporis globosis, subglobosis v. ovatis, verruculosis, pallide flavis, 27-30 × 20-27; soris uredosporiferis hypophyllis, maculis nullis v. obsoletis brunneolis insidentibus, sparsis, interdum aggregatis, minutis, punctiformibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 21-27 μ. diam. v. 24-30 × 21-24; soris teleutosporiferis conformibus, atro-brunneis vel atris; teleutosporis ellipsoi- 942

deo-oblongis, apice rotundatis, incrassatis, usque 8 μ., medio leniter constrictis, basi rotundatis, rarius leniter incrassatis, levibus, brunneis, 40-48 × 22-27; pedicello subhyalino, sporam æquante.

Hab. in foliis vivis Verbesinæ virginicæ, Austin, Texas Americæ bor. (Long).

14. **Puccinia ferox** Diet et Holw. Bot. Gaz. XXXI, 1901, p. 333 — Syd. Mon. Ured. p. 174, t. X, f. 152. — Soris teleutosporiferis amphigenis, folia incrassata et deformata reddentibus et sæpe ex toto obtegentibus, pulverulentis, irregularibus, magnis, confluentibus, brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, subtiliter verruculosis, pallide brunneolis, 34-48 × 18-26; pedicello hyalino, brevi. 943

Hab. in foliis vivis Verbesinæ diversifoliæ, Oaxaca, Mexico (Holway).

15. **Puccinia minutula** Peck in 25 Rep. of New York State Mus. p. 117. — Syd. Mon. Ured. vol. I, p. 152. — Soris teleutosporiferis hypophyllis, maculis suborbicularibus subinde confluentibus, flavis, centro sæpe brunneis v. purpureis insidentibus, aggregatis, confertis, minutis, atro-brunneis v. atris; teleutosporis oblongis, apice plerumque obtuse acuminatis, medio leniter constrictis, 40-58 × 16-18; pedicello colorato, sporam æquante. 944

Hab. in foliis vivis Solidaginis altissimæ, Catskill mountains Americæ bor.

16. **Puccinia glomerata** Grev. in Berk. Engl. Flora V, p. 365 (1837) — Syd. Mon. Ured. vol. I, p. 148, t. VIII, f. 125. — Soris teleutosporiferis amphigenis, maculis orbicularibus brunneis insidentibus, in greges rotundatos v. oblongos plerumque totam maculam occupantes, 3-6 mm. latos dense gregariis confluentibusque, sæpe circinatim dispositis, epidermide diutius tectis, tandem subpulverulentis, brunneis; teleutosporis ovato-oblongis v. oblongis, apice papilla minutissima dilutiore instructis, medio non v. vix constrictis, basi rotundatis v leniter attenuatis, levibus dilute brunneis, 30-45 × 16-24; pedicello hyalino, brevissimo. 945

Hab. in foliis vivis Senecionis Jacobææ in Belgio, Britannia.

17. **Puccinia recedens** Syd. Mon. Ured. vol. I, pag. 146, tab. VIII, f. 124. — Soris teleutosporiferis hypophyllis, maculis aridis orbicularibus v. irregularibus demum emortuis obscure brunneis dein centro atris purpureo-marginatis insidentibus, in quaque macula 946

sparsis vel paucis aggregatis, minutis, punctiformibus, compactis, obscure brunneis; teleutosporis clavulatis, apice rotundatis, incrassatis, 2,5-4 μ., medio valde constrictis, basi semper attenuatis, levibus, pallide flavidis, subinde subhyalinis, 30-40 × 12-16; pedicello hyalino, persistenti, usque 18 μ. longo; mesosporis paucis, 24-30 × 12-18.

Hab. in foliis Senecionis spec. Ann Arbor, Michigan Americæ bor. (Holway).

18. **Puccinia Senecionis** Lib. Crypt. Ard. exs. n. 92. — Syd. Mon. Ured. vol. I, pag. 143. — Æcidiis hypophyllis, maculis flavescentibus vel brunneolis insidentibus, solitariis vel in greges minutos sine ordine dispositis, explanatis, albidis, margine irregulariter laciniato; æcidiosporis globoso-angulatis, hyalino-flavescentibus, punctatis 15-20 μ. diam.; soris teleutosporiferis hypophyllis, paucis in greges minutos sine ordine dispositis, minutis, punctiformibus, epidermide medio perforata tectis, atro-brunneis; teleutosporis ovatis v. late ellipsoideis, utrinque late rotundatis, apice non incrassatis, sæpe papilla minuta pallida instructis, medio non v. lenissime constrictis, levibus, brunneis, 24-30 × 18-21; pedicello brevissimo v. subnullo, hyalino. — Cfr. Syll. VII, p. 667, n. 2313 ex p. 947

Hab in foliis vivis Senecionis Fuchsii, nemorensis, saracenici, in Germania, Austria, Helvetia et Gallia.

19. **Puccinia tasmanica** Dietel in Ann. Mycol. 1903, pag. 535. — Æcidiis laxe gregariis, cupuliformibus, margine irregulariter lacerato donatis; æcidiosporis globoso-polyhedricis, 13-17 μ. diam., subtilissime verruculosis; soris teleutosporiferis æcidiis immixtis, atris, pulvinatis, confluentibus, epidermide fissa vel integra diu velatis; teleutosporis clavatis vel oblongis, apice rotundatis, truncatis vel conoideis, basi attenuatis, medio modice constrictis, 35-53 × 18-25, episporio levi, apice usque 10 μ. incrassato castaneo, infra dilutiore donatis, pedicello firmo, superne flavescenti suffultis; adsunt etiam teleutosporæ uniloculares. 948

Hab. in caulibus foliisque Senecionis vulgaris, IV, 1895, in Tasmania.

20. **Puccinia Millefolii** Fuck. Symb. myc. pag. 55, Syd. Mon. Ured. I, p. 2, tab. 1, fig. 2. — Cfr. Sacc. Syll. VII, p. 687, n. 2370 ex p. — Soris teleutosporiferis amphigenis, maculis pallidis v. vix distinctis, minutis, rotundatis sed sæpe irregularibus, plerumque sparsis, compactis, obscure brunneis; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. leniter acutiusculis, incrassatis 4-8 μ., 949

medio constrictis, basi rotundatis vel sæpius attenuatis, levibus, pallide brunneolis, 35-50 × 13-19; pedicello apice flavidulo, crasso, persistenti, circa 40 μ. longo; mesosporis subinde paucis immixtis.

Hab. in foliis vivis Achilleæ Millefolii, A. setaceæ, in Germania, Hungaria, Italia, Britannia, Belgio, Hollandia.

21. **Puccinia Ptarmicæ** Karst. Myc. Fenn. IV, p. 41. — Syd. Mon. Ured. vol. I, p. 3. — Cfr. Sacc. Syll. VII, p. 687, n. 2370 ex p. — Soris teleutosporiferis amphigenis, plerumque autem hypophyllis, maculis flavis v. flavo-brunneis usque 5 mm. longis insidentibus, minutis, punctiformibus, sed semper dense aggregatis et sæpe omnino confluentibus et tunc 1-3 mm. v. ultra longis, compactis, obscure brunneis; teleutosporis clavatis, apice rotundatis, valde incrassatis 5-10 μ., medio constrictis, deorsum attenuatis, levibus, pallide brunneis, 36-54 × 17-24; pedicello apice leniter brunneolo, crasso, persistenti, circ. 40 μ. longo; mesosporis obovatis v. piriformibus interdum immixtis, 32-38 × 16-22. 950

Hab. in foliis Achilleæ Ptarmicæ, cartilagineæ, in Germania, Belgio, Suecia, Fennia, Rossia.

22. **Puccinia Pyrethri** Rabh. in Herb. myc. n. 1990, Syd. Mon. Ured. vol. I, p. 45. — Soris uredosporiferis plerumque hypophyllis, maculis nullis, sparsis, minutis, non confluentibus, rotundatis v. rarius oblongis, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis 20-32 × 16-24; soris teleutosporiferis amphigenis, plerumque hypophyllis, interdum caulicolis, sine maculis, sparsis v. in caule confluentibus, minutis v. mediocribus, mox nudis, rotundatis, compactiusculis, atro-brunneis v. atris; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis apice incrassatis, usque 6 μ., medio non vel vix constrictis, sublevibus vel subtiliter, præcipue ad apicem, verruculosis, castaneo-brunneis, 38-54 × 24-32; pedicello hyalino, crasso, persistenti, usque 110 μ. longo. 951

Hab. in foliis vivis Chrysanthemi (Pyrethri) corymbosi, C. parthenifolii in Germania, Austria, Hungaria, Italia, Rossia, Romania, et Chrys. sinensis in Japonia.

23. **Puccinia seriata** Syd. Mon. Ured. vol. I, p. 162, tab IX, f. 142. — Soris teleutosporiferis amphigenis v. sæpissime caulicolis, sine maculis, sparsis, aggregatis v. præsertim in caule longe seriatis, rotundatis, discoideis, ca. 1 mm. diam., compactiusculis, in caule sæpe omnino confluentibus et seriem angustam plus minusve elongatam efformantibus, atris; teleutosporis oblongis, utrinque rotun- 952

datis, apice incrassatis, usque 6 μ., medio constrictis, subtiliter, præcipue ad apicem, verruculosis, brunneis 37-54 × 18-25; pedicello hyalino, persistenti, usque 70 μ. longo.

Hab. in foliis, petiolis caulibusque Tanaceti spec. in Kurdistania (Haussknecht).

24. **Puccinia Anthemidis** Syd. Mon. Ured. Vol. I, pag. 7 (1902). — 953
Soris teleutosporiferis amphigenis vel caulicolis, sparsis, minutis, rotundatis v. irregularibus, compactis, atro-brunneis; teleutosporis oblongo-clavatis, apice rotundatis usque 6 μ. incrassatis vel conico-attenuatis et magis incrassatis, usque 10 μ., medio constrictis, basi attenuatis, levibus, flavo-brunneolis, 32-54 × 15-22; pedicello hyalino, crasso persistenti, sporam æquante.

Hab. in foliis caulibusque vivis Anthemidis altissimæ Lattes, Hérault Galliæ (Lagerheim).

25. **Puccinia Asteris-alpini** Syd. Mon. Ured. vol. I, p, 18. — Soris 954
teleutosporiferis hypophyllis, maculis minutis orbicularibus 1-2 mm. diam., flavidis v. brunneolis insidentibus, sparsis v. hinc inde aggregatis, non confluentibus, mediocribus 1-2 mm. diam., orbicularibus, diu epidermide nitida plumbea tectis, compactis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, valde incrassatis, usque 11 μ., medio constrictis, basi plerumque rotundatis, levibus, dilute brunneis, apice obscurioribus 40-54 × 19-25; pedicello hyalino, apice brunneolo, crasso, persistenti, usque 60 μ. longo; mesosporis paucis 40 × 16.

Hab. in foliis vivis Asteris alpini in Helvetia (Morthier).

26. **Puccinia artemisiicola** Syd. Mon. Ured. vol. I, pag. 14, tab. I, 955
f. 11. — Soris teleutosporiferis amphigenis v. caulicolis, subinde maculis minutis flavis insidentibus, sparsis v aggregatis confluentibusque, minutis, rotundatis v. irregularibus, epidermide fissa sæpe cinctis, pulvinatis, atro-brunneis; teleutosporis clavatis, apice plerumque rotundatis, raro acutiusculis, valde incrassatis, usque 11 μ., medio constrictis, basim versus attenuatis, levibus, pallide fuscis, loculo inferiore pallidiore 14-19 μ. lato, superiore 19-27 μ. lato, totis 40-60 μ. long., rarius usque 70 μ. longis; pedicello hyalino v. apice flavidulo, crasso, persistenti usque 70 μ. longo.

Hab. in foliis caulibusque vivis Artemisiæ campestris, A. austriacæ in Germania, Austria, Hungaria, Rossia.

27. **Puccinia artemisiella** Syd. Mon. Ured. vol. I, pag. 14, tab. 1, 956
fig. 12. — Soris teleutosporiferis hypophyllis, raro paucis etiam epiphyllis, maculis vix distinctis, irregulariter sparsis, rotundatis

v. irregularibus, minutis vel mediocribus, vix confluentibus, tomento folii sæpe obtectis, pulvinatis, atris; teleutosporis ellipsoideo-oblongis, oblongis v. oblongo-clavulatis, apice plerumque rotundatis, incrassatis 4-8 μ., medio constrictis, basi attenuatis vel rotundatis, levibus, dilute castaneis 35-49 × 14-21; pedicello hyalino, apice leniter brunneolo, crasso, persistenti, usque 70 μ. longo; mesosporis paucis circa 38 × 18.

Hab. in foliis vivis Artemisiæ vulgaris prope Berolinum Germaniæ (Sydow).

28. **Puccinia ferruginosa** Syd. Mon. Ured. vol. I, p. 13, t. 1, f. 10 (1902). — Soris teleutosporiferis hypophyllis, maculis minutis orbicularibus brunneis v. flavo-brunneis insidentibus, minutis, punctiformibus, in greges minutos laxe vel densiuscule aggregatis, vix omnino confluentibus interdum etiam solitariis, in tomento folii nidulantibus, pulvinatis, obscure ferrugineis; teleutosporis oblongis v. clavatis, apice plerumque rotundatis, valde incrassatis, 5-8 μ. diam., medio constrictis, basi attenuatis, levibus, pallide flavis 35-46, rarius usque 54 × 14-19; pedicello hyalino, crasso, persistenti, usque 50 μ. longo; mesosporis paucis 35- × 14. 957

Hab. in foliis vivis Artemisiæ vulgaris var. japonicae, Tokyo Japoniæ (Shirai).

29. **Puccinia Calendulæ** Mc. Alp. Proc. Linn. Soc. N. S. Wales 1903, p. 558. — Æcidiis luteo-aurantiacis, congestis sæpe circinantibus 320-360 μ. diam.; pseudoperidiis margine reflexis; cellulis peridii polygonalibus, margine striatis 21-24 μ. diam.; æcidiosporis irregularibus, subglobosis vel polygonalibus minutissime echinulatis pallide aurantiacis, 14-17 × 11-12; soris teleutosporiferis nigris, erumpentibus, immersis, sæpe confluentibus; teleutosporis luteo-brunneis, clavatis, ad septum constrictis, apice conicis rotundatis vel acutis episporio levi donatis, 36-52 × 19-23; pedicello hyalino, persistenti 28-37 × 7-8, apice usque 10 μ. lato; mesosporis teleutosporæ concoloribus, ellipsoideis vel piriformibus, apice conicis, 30-42 × 21-23. 958

Hab. amphigena in foliis Calendulæ officinalis, Armadale et Killara, in Victoria, Australiæ.

30. **Puccinia conyzella** Syd. Mon. Ured. vol. I, p. 62, tab. IV, f. 51. — Soris teleutosporiferis hypophyllis, sparsis, plerumque solitariis, majusculis, 2-3 mm. diam., rotundatis, compactis, obscure brunneis; teleutosporis clavatis, apice rotundatis, truncatis v. acutiusculis, valde incrassatis, usque 14 μ., medio constrictis, basi at- 959

tenuatis, levibus, pallide flavo-brunneolis, 38-60 × 14-21; pedicello hyalino v. apice flavidulo, crasso, persistenti, usque 45 μ. longo.

Hab. in foliis vivis Conyzæ myriocephalæ pr. Santiago Chile (Neger).

31. **Puccinia confluens** Syd. Mon. Ured. vol. I, p. 81, t. V, f. 68. — 960
Soris teleutosporiferis plerumque hypophyllis, maculis irregularibus brunneis insidentibus, minutis v. mediocribus sed plerumque aggregatis et omnino confluentibus et tunc pustulas irregulares crassas usque 8 mm. longas efformantibus, epidermide fissa cinctis, pulvinatis, atris; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice incrassatis, usque 8 μ., medio constrictis, levibus, intus granulosis, brunneis, 36-50 × 18-27; pedicello hyalino, persistenti, sæpe flexuoso, usque 110 μ. longo.

Hab. in foliis vivis Erigerontis macranthi in Colorado Americæ bor. (Bartholomew).

32. **Puccinia inanipes** Diet. et Holw., Bot. Gaz. XXXI, 1901, p. 332 961
et p. 422. — Sacc. Syll. XVI p. 119 (nomen). — Syd. Mon. Ured. vol. I, p. 83, tab. V, fig. 70. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sine maculis, sparsis, minutis, pulverulentis, brunneis; uredosporis subglobosis vel ellipsoideis, echinulatis, dilute brunneis, 20-28 × 16-24; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, sæpe papillula humillima lata instructis, medio non v. vix constrictis, levibus, obscure castaneo-brunneis, subopacis 32-42 × 27-34; pedicello hyalino, crasso, persistenti, usque 75 μ. longo, 14 μ. lato, cavo.

Hab. in foliis vivis Eupatorii brevipedis, Oaxaca, Mexico (Holway).

33. **Puccinia Espinosarum** Diet. et Holw. Bot. Gaz. XXXI, 1901, 962
p. 332. — Sacc. Syll. XVI, p. 1119 (nomen). — Syd. Mon. Ured. vol. I, p. 83. — Soris uredosporiferis amphigenis, maculis pallidis sæpe insidentibus, sparsis, minutis v. mediocribus, pulverulentis, brunneis; uredosporis ellipsoideis v. ovatis, echinulatis, flavo-brunneis 30-36 × 20-24; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice sæpe papillula lata humili instructis, medio leniter constrictis, levibus, obscure castaneo-brunneis, subopacis, 38-50 × 30-36, episporio crassiusculo; pedicello hyalino persistenti, usque 125 μ. longo, 12 μ. crasso, basi cavo.

Hab. in foliis vivis Eupatorii Espinosarum, Oaxaca, Mexico (Holway).

34. **Puccinia Madiæ** Syd. Mon. Ured. vol. I, p. 121, tab. VI, f. 100. 963
— Soris teleutosporiferis amphigenis, sparsis, sine maculis, rotundatis, minutis, ca. 1 mm. diam., compactis, atris; uredosporis globosis v. subglobosis, subtiliter verruculosis, flavis 25-28 µ. diam.; teleutosporis oblongis v. clavatis, apice rotundatis et incrassatis, medio leniter constrictis, basi attenuatis, levibus, pallide brunneis, 35-68 × 13-26; pedicello hyalino, crasso, persistenti, usque 60 µ. longo.

Hab. in foliis vivis **Madiæ sativæ**, M. viscosæ in Chile.

35. **Puccinia Zinniæ** Syd. Mon. Ured. vol. I, p. 188, t. XI, f. 167. — 934
Soris teleutosporiferis hypophyllis, maculis irregularibus usque 1 cm. latis, medio brunneis flavo-marginatis insidentibus, minutis, punctiformibus, dense aggregatis, sed plerumque non confluentibus, pulvinatis, griseo-atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, incrassatis, usque 6 µ., medio valde constrictis, basi plerumque rotundatis, levibus, pallide flavo-brunneis, 40-62 × 14-24, loculis facile secedentibus; pedicello concolori, persistenti, usque 70 µ. longo.

Hab. in foliis vivis **Zinniæ tenuifloræ**, Chapala Mexico (Holway).

36. **Puccinia Actinomeridis** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, 965
p. 295, t. XIII, f. 19-22. — Sacc. Syll. XVI, p. 1120 (nomen).
— Soris teleutosporiferis plerumque hypophyllis, sparsis v. hinc inde confluentibus, minutis v. mediocribus, pulverulentis, atris; uredosporis immixtis globulosis, subglobosis vel late ellipsoideis, subtiliter echinulatis, flavo-brunneis 21-25 × 18-23; teleutosporis ellipsoideis, utrinque rotundatis, apice leniter papillato incrassatis, usque 5 µ., medio non v. parum constrictis, punctatis, castaneo-brunneis 32-40 × 21-27; pedicello hyalino, apice leniter brunneolo, subpersistenti, usque 70 µ. longo.

Hab. in foliis **Actinomeridis squarrosæ**, Potomac River, Washington Americæ bor.

37. **Puccinia corsica** R. Maire in Bull Soc. bot. de France 1901, 966
tom. I, p. 214, tab. 13, fig. 6. — Soris uredosporiferis plerumque hypophyllis, in maculis flavis plerumque orbiculatim dispositis, cinnamomeo-brunneis, mox nudis, minutis; uredosporis globosis v. ovoideis 25-29 × 18-24, episporio brunneo, subtiliter aculeolato, duobus poris prædito; soris teleutosporiferis minutissimis atris, diu tectis, inter soros uredosporiferos evolutis vel in maculis propriis irregulariter congregatis; teleutosporis ovoideis vel ellipsoi-

deis 28-39 ≈ 18-26, haud constrictis, episporio crassiusculo æquali, brunneo, subtilissime punctulato vel sublevi, utraque cellula poro varie posito prædita, pedicello hyalino brevissimo; pycnidiis æcidiisque nullis.

Hab. in foliis vivis Aronici corsici prope Ghisoni et Vivario et in silvis Aïtone Corsicæ.

38. **Puccinia Doronici** Niessl in Beitr. zur Kenntniss der Pilze p. 9. 967
Syd. Mon. Ured vol. I, p. 75, tab. IV, fig. 60. — Soris teleutosporiferis hypophyllis, maculis orbicularibus v. irregularibus flavis usque 1 cm. diam. insidentibus, minutis, punctiformibus, in greges rotundatos v. irregulares usque $^3/_4$ cm. latos aggregatis, pulvinatis, compactis, atris; teleutosporis clavatis v. oblongo-clavatis, apice rotundatis v. truncatis, valde incrassatis, usque 11 µ., medio constrictis, basi attenuatis, levibus, dilute brunneis, apice pallidioribus, 38-54 ≈ 16-24; pedicello hyalino v. hyalino-flavidulo, crasso persistenti, usque 55 µ. longo.

Hab. in foliis vivis Doronici austriaci in Austria.

39. **Puccinia doronicella** Syd. Mon. Ured. vol. I, p. 74, t. IV, f. 59. 968
— Soris uredosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, minutis, pulverulentis, flavo-brunneolis; uredosporis globosis v. subglobosis, echinulatis, flavis 24-28 µ. diam.; soris teleutosporiferis amphigenis, sparsis, minutissimis, punctiformibus, pulverulentis, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio plerumque non constrictis, basi plerumque rotundatis, rarius leniter attenuatis, subtilissime verruculosis, brunneis 26-38 ≈ 16-22, episporio tenui; pedicello hyalino, brevi, deciduo.

Hab. in foliis caulibusque vivis Doronici austriaci prope Laibach Carniolæ (Voss).

40. **Puccinia Galactitis** Syd. Mon. Ured. vol. I, p. 86, t. V, f. 75. — 969
Soris teleutosporiferis hypophyllis, maculis orbicularibus 1-3 mm. latis, purpureo-brunneis depressis insidentibus, sparsis, interdum paucis aggregatis, rotundatis 1-1,5 mm. diam., firmis, compactis, tectis, griseo-brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. acutiusculis, incrassatis, usque 8 µ., medio leniter constrictis, basi plerumque attenuatis, levibus, flavo-brunneis 36-46 ≈ 16-19; pedicello hyalino crasso, persistenti, usque 55 µ. longo.

Hab. in foliis vivis Galactitis tomentosæ pr. Coimbra Lusitaniæ (Moller).

41. **Puccinia Galatellæ** Syd. Mon. Ured. vol. I, p 86, t. V, f. 76. — 970
Soris teleutosporiferis foliicolis v. caulicolis, sparsis v. aggregatis, confluentibus et usque 5 mm. longis, striiformibus, epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis v. leniter acutiusculis, valde incrassatis, usque 14 μ., medio constrictis, basi attenuatis, levibus, pallidissime brunneolis 32-58 = 16-20; pedicello hyalino, crasso, persistenti usque 60 μ. longo.

Hab. in foliis caulibusque vivis Galatellæ punctatæ, Marseille Galliæ (Riedel).

42. **Puccinia Otopappi** Syd. Mon. Ured. vol. I, p. 129. — Soris te- 971
leutosporiferis epiphyllis, rarius paucis hypophyllis, sine maculis, sparsis v. ad nervos interdum confluentibus 0,5-1 mm. diam., pulverulentis, atris; uredosporis immixtis globosis, subglobosis v. late ellipsoideis, echinulatis, dilute-brunneis, 24-30 = 21-27; teleutosporis late ellipsoideis, utrinque rotundatis, apice papillula humillima concolori vel leniter dilutiori instructis, medio non constrictis, levibus, atro-brunneis, opacis, 38-46 = 27-32; pedicello hyalino persistenti, crassiusculo, sporam subæquante.

Hab. in foliis vivis Otopappi alternifolii, San Jose Pass, Limestone Hills, Mexico (Pringle).

43. **Puccinia Marianæ** Syd. in Hedw. 1901, pag. 127 et Mon. Ured. 972
vol. I, p. 48, tab. III, fig. 42. — Soris teleutosporiferis amphigenis, maculis indeterminatis irregularibus flavis v. obsoletis insidentibus, sparsis vel irregulariter aggregatis et interdum paucis confluentibus, minutis, rotundatis, compactiusculis, atris; teleutosporis plerumque oblongis v. oblongo-clavulatis, interdum ellipsoideis, apice rotundatis v. raro leniter acutiusculis, leniter incrassatis, usque 8 μ., medio leniter constrictis, basi rotundatis v. rarius attenuatis, levibus, brunneis 40-66 = 19-27, episporio 4 μ. crasso; pedicello subhyalino, apice flavo-brunneolo, crasso, persistenti recto vel flexuoso, usque 150 μ. longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Chrysopsidis Marianæ, Sanibel Island Florida (S. M. Tracy).

44. **Puccinia Batesiana** Arth. in Bull. Torr. Bot. Cl. 1901, p. 661, 973
Syd Mon. Ured. vol. I, p. 94. — Æcidiis hypophyllis, in greges minutos dispositis, longiusculis; æcidiosporis subglobosis, verruculosis, pallidis 18-26 μ. diam.; soris teleutosporiferis plerumque hypophyllis, maculis minutis 2-3 mm. diam., rotundatis v. irregula-

ribus brunneis insidentibus, in greges minutos dispositis, compactis, pulvinatis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. sæpe attenuatis, valde incrassatis, usque 12 μ., medio non v. parum constrictis, basi attenuatis, levibus, dilute brunneis 40-62 × 12-18; pedicello flavido, 10-25 μ. longo.

Hab. in foliis vivis Heliopsidis scabræ in Jowa et Nebraska Americæ bor.

45. **Puccinia Rhapontici** Syd. Mon. Ured. vol. I, p. 139, tab. VIII, f. 120. — Soris teleutosporiferis amphigenis, sine maculis, sparsis minutis, rotundatis, non confluentibus, diutius epidermide cinerea tectis, demum nudis, pulverulentis, atro-brunneis; teleutosporis subglobosis, late ellipsoideis v. rarius oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. raro parum constrictis, subtiliter verruculosis, obscure castaneo-brunneis, 24-35 μ. diam. vel rarius usque 35–46 μ. longis, 20–24 μ. latis, episporio 3 μ. crasso; pedicello hyalino, brevissimo. 974

Hab. in foliis vivis Rhapontici pusilli in regionibus subalpinis jugi Sanin Libani (Bornmüller).

46. **Puccinia obducens** Syd. Mon. Ured. vol. I, p. 38, t. III, f. 36. — Soris teleutosporiferis hypophyllis, omnino confluentibus et crusta crassiuscula totam folii superficiem obducentibus, pulverulentis, obscure brunneis; uredosporis immixtis, perpaucis tantum visis, globosis vel subglobosis, ca. 22 μ. diam., flavo-brunneolis; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non incrassatis, medio constrictis, verrucosis, castaneo-brunneis, 32-46 × 19-28; pedicello hyalino, brevissimo. 975

Hab. in foliis vivis Centaureæ ruthenicæ, fluv. Seravschan super. Turkestaniæ (Komarow).

47. **Puccinia pencana** Syd. Mon. Ured. vol. I, p. 41, t. III, f. 37. — Soris uredosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis vel mediocribus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, brunneis 25-29 μ. diam.; soris teleutosporiferis conformibus, minutis, atro-brunneis; teleutosporis ellipsoideo-oblongis, apice rotundatis, non incrassatis, medio plerumque leniter constrictis, basi rotundatis, subtilissime verruculosis, castaneo-brunneis, 30–45 × 22-27, episporio ca. 2,5-3 μ. crasso; pedicello sæpe sporâ longiore, sed valde deciduo, hyalino. 976

Hab. in foliis vivis Centaureæ bulbosæ pr. Conception Chile (F. W. Neger).

48. **Puccinia vestita** Syd. Mon. Ured. vol I, p. 42, t. III, f. 38. — 977

Soris uredosporiferis amphigenis, sine maculis, sparsis, nunquam confluentibus, minutis, punctiformibus, semper epidermide plumbea tectis; uredosporis globosis v. subglobosis, echinulatis flavis, 22-27 μ. diam.; soris teleutosporiferis omnino conformibus; teleutosporis subglobosis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter punctatis, obscure castaneo-brunneis, 30-40 × 25-30, episporio circiter 2,5 μ. crasso; pedicello hyalino, tenui, sæpe flexuoso, usque 65 μ. longo.

Hab. in foliis vivis Centaureæ myriocephalæ ad Schaklava in monte Kuh Sefin ditionis Erbil Kurdistaniæ Assyriacæ (Bornmüller).

49. **Puccinia Centaureæ** Mont. Fl. Mosq. p. 226, Syd. Mon. Ured. pag. 39. — Cfr. Sacc. Syll. VII, pag. 633, n. 2210 et pag. 709, n. 2466. — Soris uredosporiferis plerumque hypophyllis, maculis flavis v. brunneolis v. obsoletis, minutis, sparsis, interdum confluentibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, brunneis 22-30 × 16-28; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, castaneo-brunneis 24-40 × 16-27, episporio tenui; pedicello hyalino, tenui, plerumque brevissimo, interdum autem elongato. 978

Hab. in foliis vivis Centaureæ Adami, americanæ, asperæ, atratæ, aurantiacæ, axillaris, badensis, Calcitrapæ, cheiracanthæ, conglomeratæ, coriaceæ, dealbatæ, decipientis, Endressii, exaratæ, Fenzlii, glomeratæ, ibericæ, Jaceæ, maculosæ, melitensis, Meryonis, nervosæ, nigræ, nigrescentis, paniculatæ, phrygiæ, pseudo-phrygiæ, rhenanæ, salonitanæ, Scabiosæ, solstitialis, spinulosæ, unifloræ, in Germania, Austria, Hungaria, Italia, Gallia, Hispania, Lusitania, Belgio, Hollandia, Britannia, Dania, Suecia, Norvegia, Fennia, Rossia, Serbia, Romania, Asia minori, Sibiria, America bor.

50. **Puccinia Cyani** (Schleich.) Pass. in Rabh. Fg. europ. n. 1767, Syd. Mon. Ured. vol. I, pag. 38. — Cfr. Sacc. Syll. VII, p. 633, *Puccinia suaveolens* (Pers.) Rostr. f. *Cyani* Wint. — Soris uredosporiferis plerumque hypophyllis, sine maculis, sparsis v. confertis, minutis, orbicularibus v. ellipticis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, subtiliter echinulatis, flavo-brunneis 22-30 × 19-24; soris teleutosporiferis amphigenis, 979

sparsis, minutis, punctiformibus, pulverulentis, atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtilissime verruculosis, castaneo-brunneis, 30-35 × 22-27, raro usque 40 μ. long.; pedicello hyalino, brevi.

Hab. in foliis caulibusque vivis Centaureæ Cyani in Germania, Austria, Helvetia, Italia, Gallia, Hollandia, Belgio, Suecia et Serbia.

51. **Puccinia Microlonchi** Syd. Mon. Ured. vol. I, p. 122. — Soris 980
uredosporiferis amphigenis, sine maculis, sparsis, rotundatis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis, 24-27 μ. diam.; soris teleutosporiferis amphigenis, sparsis non confluentibus, rotundatis, ca. 1 mm. diam., epidermide fissa cinctis, primo hemisphæricis, demum pulverulentis, castaneo-brunneis; teleutosporis ellipsoideis v. ovato-oblongis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, castaneo-brunneis, 30-42 × 19-26, episporio ca. 25 μ. crasso; pedicello hyalino, brevissimo.

Hab. in foliis Microlonchi salmantici, Testa di Gargano Italiæ (Martelli).

52. **Puccinia Centrophylli** Syd. Mon. Ured. vol. I, p. 104, tab. VI, 981
f. 91. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, mediocribus 1-2 mm. diam., rotundatis v. subrotundatis, epidermide plumbea centro demum irregulariter fissa semper tectis, atris, pulverulentis; uredosporis immixtis globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, dein brunneis 24-28 μ. diam.; teleutosporis forma variabilibus, plerumque ellipsoideis v. oblongis, apice rotundatis v. truncatis, non v. lenissime incrassatis, medio non constrictis, basi rotundatis, levibus v. subtilissime punctatis, obscure brunneis, 32-48 × 15-28, episporio ca. 2,5 μ. crasso; pedicello hyalino, tenui, usque 50 μ. longo, sed deciduo.

Hab. in foliis vivis Centrophylli cretici, C. syriaci in ins. Creta.

53. **Puccinia Scolymi** Syd. Mon. Ured. vol. I, p. 141. — Soris ure- 982
dosporiferis amphigenis, sine maculis, irregulariter sparsis, minutis, pulverulentis, brunneis; uredosporis globosis vel subglobosis, echinulatis, flavo-brunneis 24-30 μ. diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis, rotundatis, ca. 1 mm. diam., pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non incrassatis, medio non constrictis,

punctulatis, castaneis, 30-45 ≈ 24-30, episporio tenui; pedicello hyalino, tenui, usque 40 μ. longo, sed caduco.

Hab. in foliis vivis Scolymi grandiflori in Sicilia (Scalia) et Sc. hispanici in Syria (Bornmüller)..

54. **Puccinia Acarnæ** Syd. Mon. Ured. vol. I, p. 130, t. VII, f. 110. 983
— Soris teleutosporiferis amphigenis, sine maculis, in tomento foliorum nidulantibus, sparsis, hinc inde confluentibus, orbicularibus, mediocribus 1-1,5 mm. diam., primo interdum compactiusculis, tandem pulverulentis, atris v. atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis 23–27 μ. diam.; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice incrassatis, usque 8 μ., medio non v. parum constrictis, subtiliter punctatis, brunneis 35-54 ≈ 21–30; pedicello hyalino, persistenti, usque 60 μ. longo.

Hab. in foliis vivis Picnomi Acarnæ in Italia, Dalmatia, Syria, Kurdistania, Persia, Afghanistan, Algeria.

55. **Puccinia Atractylidis** Syd. Mon. Ured. p. 18, tab. I, f. 14. — 984
Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, orbicularibus circa 1 mm. diam., pulverulentis, epidermide fissa cinctis, atris; teleutosporis oblongis, ovatis v. oblonga subclavulatis, apice rotundatis, incrassatis usque 6 μ., medio non v. raro parum constrictis, basi late rotundatis v. etiam leniter attenuatis, subtiliter verrucosis, amœne castaneo-brunneis 40-54 ≈ 24-30; pedicello hyalino, persistenti, crasso, usque 75 μ. longo.

Hab in foliis vivis Atractylidis comosæ, in saxosis ad Brummana Libani in Syria (Bornmüller).

56. **Puccinia Bardanæ** Corda Icon. IV, p 17 (1840), Syd. Mon. Ured. 985
vol. I, p. 113. — Cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Soris uredosporiferis primariis epiphyllis, maculis orbicularibus v. irregularibus insidentibus, sparsis, interdum confluentibus, magnis, 1-5 mm. latis, rotundatis v. irregularibus, planis, epidermide fissa cinctis, pulverulentis, cinnamomeis; soris uredosporiferis secundariis, amphigenis, sine maculis, minutis, circiter $^1/_2$-1 mm. diam., sparsis v. gregariis, orbicularibus, epidermide fissa cinctis, pulverulentis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, dilute brunneis 26–30 ≈ 22-27; soris teleutosporiferis amphigenis, plerumque hypophyllis, sine maculis, sparsis v. gregariis, minutis, $^1/_2$-1 mm. diam., rotundatis, pulverulentis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis,

medio plerumque leniter constrictis, subtiliter verruculosis, obscure brunneis 30-42 × 22-27; pedicello hyalino, brevi.

Hab. in foliis vivis Lappæ majoris, minoris, nemorosæ, officinalis, tomentosæ, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Suecia, Fennia, Rossia, Romania.

57. **Puccinia Onopordi** Syd. Mon. Ured. vol. I, p. 128. — Soris teleutosporiferis amphigenis, sine maculis, omnino in tomento foliorum absconditis, sparsis vel aggregatis, minutis vel mediocribus, atro-brunneis; uredosporis immixtis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis, 24-28 μ. diam. vel 27-31 × 18-24; teleutosporis ellipsoideis v. ovato-ellipsoideis, rarius oblongis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, punctatis, brunneis 35-48 × 23-32, episporio ca. 2,5 μ. crasso; pedicello hyalino, brevissimo. 986

Hab. in foliis vivis Onopordi Cardunculi, Aintab Syriæ.

58. **Puccinia Acanthii** Syd. Mon. Ured. vol. I, p. 129. — Soris uredosporiferis plerumque hypophyllis, maculis obsoletis insidentibus, sparsis, minutis, pulverulentis, pallide brunneis; uredosporis globosis v. subglobosis, echinulatis, brunneis 22-26 μ. diam.; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, punctatis, brunneis, 25-34 × 20-24, episporio tenui; pedicello hyalino, brevissimo. 987

Hab. in foliis vivis Onopordi Acanthii, prov. Posen Germaniæ.

59. **Puccinia Tinctoriæ** P. Magn. in Abhandl. der Nat. Ges. Nürnberg XIII, p. 37 (1900), Syd. Mon. Ured. vol. I, p. 150, tab. VIII, f. 127. — Soris uredosporiferis amphigenis, maculis obsoletis pallidis insidentibus, sparsis, minutis, rotundatis, pulverulentis, obscure cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, 24-35 × 19-26; soris teleutosporiferis amphigenis, conformibus, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, brunneis, 27-42 × 19-27; pedicello hyalino, usque 14 μ. longo. 988

Hab. in foliis vivis Serratulæ tinctoriæ, coronatæ, heterophyllæ in Germania, Austria, Italia, Gallia, Suecia et Serr. centauroidis in Sibiria.

60. **Puccinia Serratulæ-oligocephalæ** Syd. Mon. Ured. vol. I, p. 149, 989

tab. VIII, fig. 126. — Soris uredosporiferis amphigenis, plerumque hypophyllis, per totam superficiem foliorum sparsis, mediocribus, subcircularibus, planis, epidermide lacerata cinctis, pulverulentis, cinnamomeis; uredosporis globosis, echinulatis, flavo-brunneis, 21-27 μ. diam.; soris teleutosporiferis hypophyllis, sparsis, interdum confluentibus, irregularibus, 1-2 mm. latis, epidermide plumbea diutius tectis, demum pulverulentis, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosis, castaneo-brunneis, 35-40 × 27-30; pedicello hyalino, usque 15 μ. longo.

Hab. in foliis vivis Serratulæ oligocephalæ, Aintab Syriæ (Haussknecht).

61. **Puccinia inclusa** Syd. Mon. Ured. vol. I, p. 56, tab. III, f. 43. 990
— Soris uredosporis hypophyllis, in lana foliorum nidulantibus, sparsis, minutis, rotundatis, cinnamomeis; uredosporis globosis v. subglobosis, subtilissime echinulatis, dilute brunneis 24-32 μ. diam., soris teleutosporiferis conformibus, atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosis, læte castaneis, 35-40 × 24-28, episporio tenui; pedicello hyalino, brevissimo.

Hab. in folliis vivis Cirsii (Cnici) undulati in Kansas Americæ bor. (Bartholomew).

62. **Puccinia Benedicti** Syd. Mon. Ured. vol. I, p. 61, tab. IV, f. 49. 991
— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, brunneis; uredosporis globosis v. subglobosis, echinulatis, dilute brunneis, 22-27 μ. diam.; poris germinationis tribus instructis; soris teleutosporiferis conformibus, atris, teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 30-40 × 22-27, episporio tenui; pedicello hyalino, tenui, sporam subæquante, deciduo.

Hab. in foliis vivis Cnici benedicti, in horto botanico Belgrad Serbiæ (N. Ranojevic).

63. **Puccinia obtegens** (Lk.) Tul. in Ann. Sc. nat. IV, p. 87 (1854), 992
Syd. Mon. Ured. vol. I, pag. 53: cfr. Sacc. Syll. VII, p. 633, n. 2209, p. p. — Pycnidiis hypophyllis, confertis, totam foliorum superficiem obtegentibus, grati odoris, intense melleis; soris uredosporiferis et teleutosporiferis primariis hypophyllis, totam superficiem occupantibus, minutis, confertis, sæpe confluentibus, pulverulentis, rufo-fuscis, demum obscurioribus; soris uredosporiferis

et teleutosporiferis secundariis hypophyllis, sparsis non confluentibus, minutis, atro-brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, dilute brunneis, 21-28 μ. diam.; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis vel basi leniter attenuatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, brunneis, 26-42 × 17-25, episporio tenui; pedicello hyalino, tenui, brevi.

Hab. in foliis vivis Cirsii arvensis in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Fennia, Rossia, Sibiria et in America bor.

64. **Puccinia Cardui-pycnocephali** Syd. Mon. Ured. vol. I, p. 34. t. III, 993
fig. 35, D. Sacc. Myc. ital. n. 1085. — Soris uredosporiferis hypophyllis, sine maculis, sparsis, minutis, dilute brunneis; uredosporis globosis v. subglobosis, subtilissime echinulatis, dilute brunneis, 22-26 μ. diam.; soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, in tomento plantæ nutricis nidulantibus, brunneis; teleutosporis oblongis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 38-50 × 16-23, episporio tenui; pedicello hyalino, tenui, usque 40 μ. longo, sed deciduo.

Hab. in foliis vivis Cardui pycnocephali, Testa di Gargano Italiæ (U. Martelli, A. Fiori).

65. **Puccinia galatica** Syd. Mon. Ured. vol. I, pag. 34. — Soris te- 994
leutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, pulverulentis, atris; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, dilute brunneis 22-28, μ. diam., teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque parum constrictis, subtiliter punctatis, obscure brunneis, 30-45 × 22-28, episporio ca. 3 μ. crasso; pedicello hyalino, tenui, usque 30 μ. longo.

Hab. in foliis vivis Cardui pycnocephali var. albidi, in Ponto Galactico Asiæ minoris (Bornmüller).

66. **Puccinia Cnici-oleracei** Pers. apud Desm. Catal. des plant. omises, 995
p. 24, 1823, Syd. Mon. Ured. p. 58, tab. III, f. 47, *P. spectabilis* Otth. — Sacc. Syll. XIV, p. 314. — Soris teleutosporiferis hypophyllis, maculis orbicularibus usque 5 mm. diam., pallidis insidentibus, minutis, circinatis, sed plerumque in greges usque 5 mm. latos orbiculares diu tectos omnino confluentibus, compactis, brunneis; teleutosporis clavatis, apice plerumque rotundatis, rarius conico-acutiusculis, valde incrassatis, 5-10 μ., medio constrictis, basi at-

tenuatis; levibus, flavo-brunneis, 38-56 × 14-21; pedicello hyalino flavidulo, crasso, persistenti, usque 50 μ. longo.

Hab. in foliis vivis Cirsii ochroleuci, oleracei, lanceolati, Cardui crispi (?) in Germania, Italia, Helvetia, Belgio, Britannia, Fennia.

67. **Puccinia kermanensis** Syd. Mon. Ured. vol I, p. 57, tab. III, f. 45. — Soris uredosporis amphigenis, sparsis, sine maculis, rotundatis, mediocribus, circiter 1 mm. diam., epidermide fissa cinctis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, dilute brunneis, 24-32 μ. diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis v. aggregatis, interdum subconfluentibus, mediocribus, 1-2 mm. diam., pustuliformibus, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, non incrassatis, medio non constrictis, basi plerumque rotundatis, verrucosis, castaneo-brunneis, 37-54 × 19-27, episporio circiter 3-3,5 μ. crasso; pedicello hyalino, fragili, usque 35 μ. longo. 996

Hab. in foliis vivis Cirsii bracteosi, spectabilis in prov. Kerman Persiæ aust. (Bornmüller).

68. **Puccinia Cirsii** Lasch in Rabh. Fg. europ. n. 89, Syd. Mon. Ured. vol. I, pag. 55: cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Soris uredosporiferis amphigenis, sparsis, minutis, mox nudis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis, ellipsoideis v. ovatis, echinulatis, dilute brunneis, 22-28 × 19-24; soris teleutosporiferis conformibus, atro-brunneis v. atris; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, subtiliter verruculosis, castaneo-brunneis, 25-38 × 17-25, episporio tenui; pedicello hyalino. 997

Hab. in foliis vivis Cirsii acaulis, altissimi, bulbosi, californici, cani, discoloris, Drummondii, Erisithalis, heterophylli, japonici, monspessulani, oleracei, palustris, rivularis, ruthenici, spinosissimi, tatarici, in Germania, Austria, Hungaria, Helvetia, Italia, Hispania, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Norvegia, Fennia, Rossia, Sibiria, Japonia et in America bor.

69. **Puccinia Echinopis** D. C. Fl. franç. VI, p. 57, Syd. Mon. Ured. vol. I, p. 75. — Sacc. Syll VII, p. 711, sub *P. Echinopis* Haszl. — Soris uredosporiferis amphigenis, plerumque epiphyllis, maculis nullis v. obsoletis insidentibus, sparsis, plerumque non confluentibus, mediocribus, orbicularibus, pulverulentis, cinnamomeis; uredosporis 998

globosis, echinulatis, dilute brunneis, 24-27 μ. diam; soris teleutosporiferis amphigenis, plerumque epiphyllis, sine maculis, sparsis, raro confluentibus, mediocribus 1-1,5 mm. diam., hemisphærico-prominentibus, epidermide fissa cinctis, pulverulentis, atris; teleutosporis ellipsoideis v oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, dilute brunneis, 32-46 × 18-27; pedicello hyalino brevi, tenuissimo.

Hab. in foliis caulibusque vivis Echinopis banatici, E. Ritro, E. sphærocephali, in Germania, Austria, Hungaria, Italia, Serbia, Rossia.

70. **Puccinia Fuckelii** Syd. Mon. Ured. vol. I, p. 103, tab. VI, f. 90, 999
P. Compositarum f. *Jurineæ* Fuck. in Fg. rhen. n. 345. — Soris uredosporiferis epiphyllis, maculis nullis v. obsoletis insidentibus, sparsis, minutis, rotundatis, epidermide lacerata cinctis, pulverulentis, ferrugineis, uredosporis globosis v. subglobosis, subtiliter echinulatis, brunneis, 19-27 μ. diam.; soris teleutosporiferis conformibus, usque 1 mm. diam., atro-brunneis teleutosporis ellipsoideis v. ellipsoideo-oblongis, utrinque rotundatis, apice non incrassatis, medio non vel raro lenissime constrictis, levibus, castaneo-brunneis, 35-48 × 21-27; pedicello hyalino, tenui, deciduo usque 30 μ. longo.

Hab. in foliis vivis Jurineæ cyanoidis pr. Budenheim Nassoviæ in Germania (L. Fuckel).

71. **Puccinia Carduncelli** Syd. Mon. Ured. vol. I, p. 33. — Soris te- 1000
leutosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis $^1/_2$-1 mm. diam., rotundatis vel oblongis, subpulverulentis, atris; uredosporis immixtis subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 25-32 × 19-26; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque crasso; pedicello hyalino, brevissimo.

Hab. in foliis Carduncelli cærulei, in Sicilia.

72. **Puccinia Cousiniæ** Syd. Mon. Ured. vol. I, p. 62, tab. IV, f. 52. — 1001
Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, orbicularibus, convexis, 1-1,5 mm. diam., atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, 21-27 μ. diam.; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis, rarius leniter attenuatis, non v. parum incrassatis, usque 4 μ., medio non v. vix constrictis, basi rotundatis, subtiliter punctatis, castaneo-brunneis, 37-54 × 21-30; pedicello hyalino, brevi, tenui, deciduo.

Hab. in foliis vivis Cousiniæ anomalæ, bicoloris, buphthalmoidis, contumacis, fallacis, libanoticæ, Onopordi in Syria, Armenia, Turkestania et Persia.

73. **Puccinia Pinaropappi** Syd. in Hedw. 1901, p. 127 et Mon. Ured. vol. I, p. 132. — Soris uredosporiferis amphigenis, maculis minutis flavis rotundatis insidentibus, sparsis, minutis, epidermide fissa cinctis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, aculeatis, dilute brunneis, 22–28 μ. diam.; soris teleutosporiferis conformibus, atris v. atro-brunneis; teleutosporis ellipsoideis, ovato-ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio non constrictis, basi rotundatis, subtilissime verruculosis v. tantum punctatis, obscure brunneis, 32-40 × 21–28; pedicello hyalino, crassiusculo, brevi, deciduo. 1002

Hab. in foliis vivis Pinaropappi rosei, Austin, Texas (Long).

74. **Puccinia Pyrrhopappi** Syd. Mon. Ured. vol. I, p. 138. — Soris uredosporiferis amphigenis, maculis nullis v. obsoletis pallidis aut brunneis insidentibus, sparsis, quandoque circulariter dispositis, minutis, orbicularibus, non confluentibus, pulverulentis cinnamomeis; uredosporis globosis, subglobosis v. ovatis, echinulatis, flavo-brunneis, 22-27 μ. diam. v. 22-27 × 17-21; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosis, fuscis, 30-40 × 19-25; pedicello hyalino usque 15 μ. longo. 1003

Hab. in foliis vivis Pyrrhopappi scaposi in Kansas (Bartholomew).

75. **Puccinia Stobææ** Mac Owan. — Sacc. Syll. VII, pag. 615. — var. **Woodii** Syd. Mon. Ured. vol. I, p. 160, tab. IX, fig. 138. — Soris hypophyllis, in epiphyllo maculas orbiculares purpureo-brunneas generantibus, sparsis; uredosporis globosis, regularibus, echinulatis, obscure brunneis, 20–28 μ. diam.; teleutosporis late ellipsoideis, rarius suboblongis, apice valde incrassatis usque 11 μ., sed semper late et obtuse rotundatis nec productis, basi rotundatis, medio non v. lenissime constrictis, obscure brunneis, 43-57 × 27-38; pedicello hyalino, persistenti, usque 54 μ. longo, 6 μ. cr., basi tenuiore. 1004

Hab. in foliis vivis Stobææ speciosæ ad Port Natal Africæ austr. (Wood).

76. **Puccinia Acanthospermi** Henn. in Hedw. 1902, p. 296. — Ma- 1005

culis rotundatis, fuscis; soris hypophyllis, aggregatis, minutis pulvinatis, ferrugineis, plerumque in circulos 1-2 mm. diam. dispositis; teleutosporis clavatis vel subfusoideis, apice paullo incrassatis, rotundato-obtusis vel apiculatis, flavo-brunneis, 30-40 × 13-24, septo plus minus constrictis; pedicello subclavato, fuscidulo, persistente, 10-25 × 3-5, episporio levi, brunneo.

Hab. in foliis Acanthospermi xanthioidis, in horto botanico, S. Paulo Brasiliæ. — *P. Acanthospermi* Syd. Ann Myc. 1903, p. 17 non differt. Hæc in eadem matrice, Venezuela.

77. **Puccinia Acroptili** Syd. Mon. Ured. vol. I, pag. 4, tab. I, f. 4, 1902. — Soris uredosporiferis amphigenis, sine maculis, sparsis, non confluentibus, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, dilute brunneis, 22-27 μ. diam.; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtilissime verruculosis, dilute brunneis, 35-42 × 19-27; pedicello hyalino, usque 28 μ. longo. 1006

Hab. in foliis vivis Acroptili Picridis in Kurdistania, Persia (Haussknecht, Bornmüller).

78. **Puccinia Ainsliææ** Syd. Mon. Ur. vol. I, p. 6 (1902). — Soris teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus fuscis circ. 2-3 mm. diam., insidentibus, minutis, 50-750 μ. diam., rotundatis, in macula annulariter dispositis, compactis, pulvinatis, atro-brunneis; teleutosporis oblongis v. oblongo-clavatis v. ovato-oblongis, apice rotundatis, truncatis v. conico-attenuatis, valde incrassatis, usque 12 μ., medio constrictis, basi plerumque attenuatis, levibus, dilute flavo-brunneis apice obscurioribus, 32-45 × 14-20; pedicello flavido persistenti, usque 60 μ. longo. 1007

Hab. in foliis vivis Ainsliææ gracilis in prov. Hupe Sinarum (A. Henry).

79. **Puccinia Aplopappi** Syd. Mon. Ured. vol. I, p. 8, tab. I, f. 7 (1892). — Soris teleutosporiferis amphigenis, maculis orbicularibus v. irregularibus flavidis insidentibus, solitariis, sparsis v. in greges minutos aggregatis, subinde confluentibus, rotundatis circa 1 mm. diam., pulvinatis, atro-castaneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis v. leniter acutiusculis, valde incrassatis, usque 12 μ., medio constrictis, basi plerumque attenuatis, levibus, dilute castaneo-brunneis, 40-64 × 16-28; pedicello hyalino, crasso, persistenti, usque 140 μ. longo. 1008

Hab. in foliis vivis Aplopappi spinulosi, squarrosi, in Montana et California Americæ bor. (Mc Clatchie).

80. **Puccinia Zœgeæ-crinitæ** N. Speschnew Fungi transcaspici et turkestanici 1901, p. 9, tab. I, f. 22-26. — Maculis in pag. sup. et inf. foliorum, fuscis, subrotundatis, sparsis, inflatis 1-5 mm. diam.; soris uredosporiferis irregulariter dispositis, rotundatis, primo epidermide velata, pallida tectis, postremo cinctis, pulvinatis brunneolis uredosporis globosis, ellipsoideis v. ovoideis, sempiterne poris germinationis 2-3 ad mediam altitudinis sporæ dispositis, sine papilla, episporio minute verrucoso, brunneis, 20-24 × 19-20; soris teleutosporiferis minutis, rotundatis, atro-fuscis, sparsis, raro confluentibus, prominulis; teleutosporis subellipsoideis, clavatis, medio septatis, non constrictis, apice mediocr. incrassatis 30-36 × 24-28; episporio flavo-brunneo, levissime verrucoso; pedicello hyalino, persistente, sporam longitudine æquante vel eam superante. 1009

Hab. in foliis caulibusque Zœgeæ crinitæ, in Rossia asiat.

81. **Puccinia Xylorrhizæ** Arth. in Buli. Torr. Bot. Cl. 1901, p. 662, Syd. Mon. Ured. vol. I, p. 185. — Soris teleutosporiferis amphigenis, maculis flavis insidentibus, dense circinatim dispositis, minutis, rotundatis, epidermide rupta cinctis, mox nudis, pulvinatis, atris; uredosporis paucis interdum immixtis, globosis v. ellipsoideis, flavis, verruculosis, 24-26 μ. diam.; teleutosporis oblongis, apice rotundatis et parum incrassatis vel conico-attenuatis et valde incrassatis vel conico-attenuatis et valde incrassatis, usque 10 μ., medio constrictis, basi plerumque rotundatis, levibus, brunneis, 40-65 × 20-27; pedicello persistenti, crasso, flavescenti, usque 100 μ. longo, interdum lateraliter disposito. 1010

Hab. in foliis vivis Xylorrhizæ glabriusculæ in Wyoming Americæ bor.

82. **Puccinia Wyethiæ** (Peck) Ell. et Ev. in North Am. Fg. n. 2987, *Uredo Wyethiæ* Peck. — Sacc. Syll. VII, p. 863. — Syd. Mon. Ured. vol. I, pag. 184, tab. XI, f. 162. — Soris uredosporiferis amphigenis, maculis plerumque nullis, sparsis, sed sæpe numerosis, minutis, pulverulentis, pallide fuscis; uredosporis globosis subglobosis v. late ellipsoideis, echinulatis, brunneis, 30-40 × 23-30; soris teleutosporiferis amphigenis, sparsis, interdum aggregatis confluentibusque, minutis v. mediocribus, 0,5-1.5 mm. diam., rotundatis, epidermide lacerata cinctis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non in- 1011

crassatis, medio non v. vix constrictis, dense punctatis, læte castaneis, 30–45 × 18-27; pedicello hyalino, deciduo, brevissimo.

Hab. in foliis vivis Wyethiæ angustifoliæ in Colorado et California Americæ bor.

83. **Puccinia Stizolophi** Syd. Mon. Ured vol. I, pag. 158, tab. IX, f. 136. — Soris teleutosporiferis amphigenis, sine maculis, sparsis mediocribus v. majusculis, 1-3 mm. diam., subrotundatis v. irregularibus, pustuliformibus, epidermide plumbea diutius tectis, demum ea fissa cinctis, pulverulentis, atris; uredosporis immixtis, globosis, ellipsoideis v. ovatis, subtiliter echinulatis, flavo-brunneolis, 21-30 × 18-24; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio plerumque non constrictis, punctatis, castaneo-brunneis, 30-48 × 21-30, episporio circiter 3-4 μ. crasso; pedicello hyalino, tenui, deciduo, usque 35 μ. longo. 1012

Hab. in foliis vivis Stizolophi coronopifolii pr. Mersina Anatoliæ orient. (Bornmüller).

84. **Puccinia subdecora** Syd. et Holw. Ann. Mycol. 1903, p. 17. — Soris teleutosporiferis amphigenis, sine maculis, rotundatis v. irregularibus, mediocribus confluentibusque, pulverulentis, atro-brunneis; uredosporis immixtis globosis, subglobosis v. ovatis, minute aculeatis, brunneolis, 25-30 × 19-28; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non v. lenissime incrassatis, sæpe autem papilla dilutiore lata donatis, medio vix v. leniter constrictis, punctatis, castaneis, 34-50 × 16-28, episporio ca. 2–2,5 μ. crasso; pedicello hyalino, crasso subpersistenti, usque 30 μ. longo. 1013

Hab. in foliis vivis Brickelliæ grandifloræ, Georgetown Colorado Amer. bor. (Holway).

85. **Puccinia præmorsa** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 332, Syd. Mon. Ured. vol. I, p. 31, tab. III, f. 32. — Soris teleutosporiferis hypophyllis, maculis rotundatis brunneis depressulis insidentibus, singulis in quaque macula, mediocribus, plerumque et pluribus minoribus omnino coalitis formatis, pulvinatis, atro-brunneis; teleutosporis oblongo-clavatis, apice truncatis, conico-attenuatis v. irregularibus, incrassatis, usque 8 μ., medio leniter constrictis, basi attenuatis, levibus brunneis, 40-70 μ. long., loculo superiore 16-30 μ. lato, inferiore semper angustiore; pedicello brevi, firmo, brunneolo. 1014

Hab. in foliis vivis Brickelliæ veronicæfoliæ, Oaxaca Mexico.

86. **Puccinia Picrosiæ** Syd. Mon. Ured. vol. I, p. 131. — Soris teleutosporiferis amphigenis, maculis nullis vel obsoletis brunneis insidentibus, in greges rotundatos ad nervos sæpe elongatos 5-10 mm. longos dense aggregatis, pulvinatis, obscure brunneis; teleutosporis clavatis v. oblongo-clavatis, apice rotundatis vel conico-angustatis, incrassatis, usque 9 μ., medio constrictis, basi angustatis, levibus, flavidis, 35-46 × 15-21; pedicello hyalino, crasso, persistenti, usque 38 μ. longo. 1015

Hab. in foliis vivis Picrosiæ longifoliæ, in Brasilia.

87. **Puccinia Lugoæ** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, p. 293, Syd. Mon. Ured. vol. I, p. 118. — Soris teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus rufo-brunneis, usque 1 cm. diam. insidentibus, in greges rotundatos annulatim laxeque dispositis, minutis, rotundatis, compactiusculis, atris; uredosporis immixtis, globosis, subglobosis v. ellipsoideis, aculeatis, flavo-brunneis, 27-40 × 18-26; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis, 4-6 μ., medio non v. vix constrictis, punctulatis 33-42 × 17-27; pedicello hyalino, persistenti crasso, ad insertionem subinde leniter incrassato, usque 120 μ. longo. 1016

Hab. in foliis Lugoæ revolutæ, pr. Tagauana, Teneriffa in ins. Canariis (Bornmüller).

88. **Puccinia Leuzeæ** Syd. Mon. Ured. vol. I, p. 118. — Soris uredosporiferis hypophyllis, sine maculis, sparsis, non confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, flavo-brunneis, 21-25 μ. diam.; soris teleutosporiferis conformibus, brunneis; teleutosporis ellipsoideis v. ovatis, utrinque rotundatis, apice non incrassatis, medio plerumque non constrictis, subtilissime verruculosis, brunneis, 22-34 × 18-24, episporio tenui; pedicello hyalino, brevissimo. 1017

Hab. in foliis Leuzeæ carthamoidis, in Sibiria occid.

89. **Puccinia Krigiæ** Syd. Mon. Ured. vol. I, p. 104. — Soris uredosporiferis amphigenis, maculis minutis pallidis insidentibus, sparsis, minutis, rotundatis, pulverulentis, dilute brunneis; uredosporis globosis v. subglobosis, rarius ellipsoideis, subtiliter echinulatis, dilute flavo-brunneis, 21-27 μ. diam.; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis v. subtilissime verruculosis, castaneo-brunneis 32-40 × 19-23, episporio tenui; pedicello hyalino tenui, brevi, deciduo. 1018

Hab. in foliis caulibusque vivis Krigiæ amplexicaulis pr. Asheville, North Carolina Americæ bor. (B. L. Robinson).

90. **Puccinia Jostephanes** Diet et Holw. Bot. Gaz. XXXI, 1901, p. 334. 1019
Sacc. Syll. XVI, p. 1119 (nomen), Syd. Mon. Ured. vol. I, p. 101, t. VI, p. 86. — Soris teleutosporiferis plerumque epiphyllis, rarius hypophyllis, maculis minutis purpureis sæpe insidentibus, sparsis, minutis, punctiformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice et sæpe sub septo papillula dilutiore instructis, medio non v. vix constrictis, verrucosis, castaneo-brunneis, 35-50 × 24-35; episporio ca. 3 μ. crasso; pedicello hyalino e latere inserto, persistenti, usque 80 μ. longo.

Hab. in foliis vivis Jostephanes heterophyllæ, Cuernavaca Mexico (Holway).

91. **Puccinia Homoianthi** Syd. Mon. Ured. vol. I, p. 99, t. VI, f. 85. 1020
— Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, dilute brunneis, 22-28 μ. diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 30-40 × 22-27, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis vivis Homoianthi variabilis et Hom. viscosi in Chile.

92. **Puccinia Helianthellæ** Arthur Bull. Torr. Bot. Cl. 1904, p. 4. — 1021
Soris uredosporiferis amphigenis, sparsis rotundatis, immersis, pulverulentis, pallide brunneis; uredosporis globosis, 25-32 μ. latis, episporio pallide-brunneo, 3 μ. cr., minute subechinulato, poris 2 æquatorialibus vel oppositis; soris teleutosporiferis amphigenis, sparsis, rotundatis, immersis, pulverulentis, pallide-brunneis; teleutosporis ellipsoideis v. obovato-oblongis, 30-40 × 20-26, utrinque obtusis vel rotundatis, ad septum non vel vix constrictis; episporio levi pallide brunneo, 2-2,5 μ. cr., apice incrassatulo; pedicello hyalino, exili, sporæ æquilongo, fugaci.

Hab. in foliis Helianthellæ Nevadensis, Nevada County Californiæ (A. A. Heller).

93. **Puccinia Guardiolæ** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 334, 1022
Sacc. Syll. XVI, pag. 1119 (nomen) — Syd. Mon. Ured. vol. I, pag. 90, t. V, fig. 79. — Soris uredosporiferis plerumque hypophyllis, maculis irregularibus, purpurascentibus insidentibus, sparsis, minutis, obscure brunneis, pulverulentis; uredosporis globosis,

subglobosis vel ovatis, echinulatis, brunneis, 24-32 × 20-25, poris germinationis binis instructis; soris teleutosporiferis conformibus, compactiusculis, atro-brunneis; teleutosporis oblongo-clavatis vel clavatis, apice rotundatis vel rarius truncatis, incrassatis, 4–8 μ., medio constrictis, basi plerumque attenuatis, rarius rotundatis, levibus pallide brunneis, apice subhyalinis, 45-60 × 18-25; pedicello hyalino, crassiusculo, persistenti, usque 60 μ. longo.

Hab. in foliis vivis Guardiolæ mexicanæ, Cuernavaca, Mexico (Holway).

94. **Puccinia Gonospermi** P. Magn. in Ber. Deutsch. Bot. Ges. 1901, p. 293, Sacc. Syll. XVI, pag. 1120 (nomen) — Syd. Mon. Ured. vol. I, p. 89. — Soris teleutosporiferis hypophyllis, maculis nullis v. vix distinctis insidentibus, sparsis, minutis, rotundatis, compactiusculis, atris; uredosporis immixtis, subglobosis v. ellipsoideis, subtiliter echinulatis, flavo-brunneis, 27-35 × 19-25; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis 4-6 μ., medio non v. vix constrictis, punctulatis, dilute brunneis, 32-42 × 18-25; pedicello hyalino, persistenti, crassiusculo, usque 100 μ. longo. 1023

Hab. in foliis vivis Gonospermi fruticosi pr. Laguna, Teneriffa ins. Canar. (Bornmueller).

95. **Puccinia Franseriæ** Syd. in Ann. Mycol. vol. I, 1903, pag. 326. — Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, rotundatis, punctiformibus, pulverulentis, obscure brunneis; uredosporis globosis v. subglobosis, echinulatis, brunneis, 25-32 μ. diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque late rotundatis, apice valde incrassatis, usque 10 μ., medio plerumque leniter constrictis, levibus, brunneis, 38-50 × 26-32; pedicello crasso, hyalino, persistenti, usque 110 μ. longo. 1024

Hab. in foliis vivis Franseriæ ambrosioidis, Tucson Mts. in Arizona Americæ bor. (Griffiths).

96. **Puccinia Barroeteæ** Syd. Mon. Ured. vol. I, p. 28, t. II, fig. 28. — Soris uredosporiferis hypophyllis, maculis irregularibus fuscis, insidentibus, sparsis, minutis vel mediocribus, pulverulentis, cinnamomeis; uredosporis subglobosis, ovatis v. ellipsoideis, echinulatis, flavo-brunneis, 27-35 × 19-27; soris teleutosporiferis conformibus etiam caulicolis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice papilla subhyalina auctis, medio constrictis, le- 1025

vibus, castaneo-brunneis, 40-65 × 27-35; pedicello hyalino, persistenti, crasso, usque 110 μ. longo.

Hab. in foliis caulibusque vivis Barroeteæ sabuligeræ, Aguas Calicutes, Mexico (Holway).

97. **Puccinia Calimeridis** Syd. Mon. Ured. vol. I, p. 32, t. III, f. 34. 1026
— Soris teleutosporiferis amphigenis, maculis nullis vel vix distinctis, sparsis, mediocribus, ca. 1-1,5 mm. rotundatis v. irregularibus, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis, raro acutiusculis, valde incrassatis, 8-13 μ, medio constrictis, basi rotundatis vel in pedicellum attenuatis, levibus, pallide brunneolis, loculo superiore paullo obscuriore, plerumque 36-50 × 18-27, rarius usque 60 μ. long.; pedicello hyalino, crasso, persistente, usque 70 μ. long.; mesosporis paucis obovatis.

Hab. in foliis Calimeridis altaicæ, Minussinsk Sibiriæ (Martianoff).

98. **Puccinia clarioneicola** Syd. Mon. Ured. vol. I, p. 61. — Soris 1027
uredosporiferis amphigenis, sine maculis, sparsis, numquam confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis vel subglobosis, echinulatis, brunneis, 24-30 μ. diam.; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. oblongis utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, punctatis, brunneis, 35-44 × 23-27, episporio tenui; pedicello brevi hyalino.

Hab. in foliis vivis Clarionearum variarum in Chile et Fuegia.

99. **Puccinia crassicutis** Syd. Mon. Ured. vol. I, pag. 125, t. VII, 1028
f. 105. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, rotundatis, ca. 1 mm. diam., primo tomento folii tectis dein nudis, pulverulentis, atris; uredosporis immixtis oblongis v. ellipsoideis, aculeatis, flavis, 32-40 × 16-20, apice incrassatis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice papilliformi-incrassatis, usque 10 μ. et subhyalinis, medio vix v. leniter constrictis, verrucosis, obscure brunneis, 52-60 × 27-38, episporio usque 8 μ. crasso; pedicello hyalino, crasso, persistenti, flexuoso, usque 80 μ. longo.

Hab. in foliis vivis Mutisiæ Clematis, S. Cruz Boliviæ.

100. **Puccinia Desmanthodii** Diet. et Holw. Bot. Gaz. XXXI, 1901, 1029
p. 334, Sacc. Syll. XVI, pag. 1119 (nomen) — Syd. Mon. Ured. vol. I, p. 73, t. IV, f. 58. — Soris teleutosporiferis hypophyllis, maculis magnis irregulariter limitatis, violaceis v. flavis, usque 1

cm. diam. insidentibus, minutis sed in greges magnos dense confertis, compactis, atris, paraphysibus atro-brunneis coalitis circumscriptis; teleutosporis oblongo-lanceolatis vel fusiformibus, apice attenuatis vel truncatis, incrassatis, usque 9 μ., medio non vel leniter constrictis, basi attenuatis, levibus, dilute brunneis, 40-60 × 10-16; pedicello brunneolo, firmo, usque 40 μ. longo.

Hab. in foliis Desmanthodii ovati, Oaxaca, Mexico (Holway).

101. **Puccinia Electræ** Diet. et Holw. Bot. Gaz. XXXI, 1901, p. 333, 1030
Syll. XVI, p. 1119 (nomen) — Syd. Mon. Ured. vol. I, p. 76, tab. IV, f. 62. — Soris uredosporiferis epiphyllis, maculis varie coloratis insidentibus, rarius hypophyllis, sparsis, minutis, pulverulentis, obscure brunneis, 26-35 × 20-25; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, verrucosis, obscure castaneo-brunneis, 35-48 × 24-32, episporio crasso; pedicello hyalino, sursum brunneolo, crasso, persistenti, usque 80 μ. longo, interdum laterali.

Hab. in foliis vivis Electræ Galeottii, Oaxaca, Mexico (Holway).

102. **Puccinia Hypochœridis** Oud. in Nederl. Kruidk, Archief II, 1031
ser. I, pag. 175 (1873): cfr. Sacc. Syll. VII, p. 633, n. 2210 p. p. — Syd. Mon. Ured. vol. I, p. 100. — Soris uredosporiferis amphigenis v. sæpe caulicolis, plerumque maculis minutis insidentibus, sparsis, pulverulentis, cinnamomeis, primariis mediocribus, secundariis minutis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, pallide brunneis, 22-28 μ. diam.; soris teleutosporiferis amphigenis, sæpe caulicolis, sparsis, minutis, punctiformibus, in caule majoribus, pulverulentis, atris; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, rarius attenuatis, subtiliter verruculosis, brunneis, 30-46 × 18-24, episporio tenui; pedicello brevi, hyalino.

Hab. in foliis caulibusque vivis Hypochœridis glabræ helveticæ, maculatæ, radicatæ, unifloræ, in Germania, Italia, Austria, Hungaria, Helvetia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Lusitania, Sibiria, America bor. et Chile.

103. **Puccinia hemisphærica** (Peck) Ell. et Ev. in North Am. Fung. 1032
n. 3144. — Syd. Mon. Ured. vol. I, pag. 109, t. VI, f. 93: cfr. Sacc. Syll. VII, p. 805, sub *Æcidio hemisphærico* Peck. — Py-

cnidiis amphigenis, minutis, brunneolis; æcidiis plerumque hypophyllis vel caulicolis, interdum etiam epiphyllis, maculis nullis, per totam foliorum superficiem æque sparsis vel præcipue nervum medium sequentibus, sæpe etiam caulicolis, hemisphæricis, diu clausis dein poro centrali apertis, flavis, pariete proprio vix evoluto; æcidiosporis globosis vel subglobosis, verruculosis, pallide aurantiacis 20-27 μ. diam.; soris uredosporiferis amphigenis, plerumque hypophyllis, maculis minutis, flavis v. viridibus insidentibus, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis v. ellipsoideis echinulatis, brunneis, 20-28 × 18-25; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, subtiliter verruculosis, brunneis, 27-42 × 16-25; pedicello hyalino, brevi.

Hab. in foliis caulibusque vivis Lactucæ (Mulgedii) pulchellæ, Ludovicianæ in America bor.

104. **Puccinia Lactucarum** Syd. Mon. Ured. vol. I, p. 108. — Æcidiis plerumque hypophyllis vel caulicolis, maculis irregularibus, flavo-brunneis insidentibus, paucis plerumque irregulariter et laxe aggregatis, primo hemisphæricis, dein applanatis, flavis; æcidiosporis globosis vel subglobosis, subtiliter verrucosis, pallide aurantiacis, 18-27 μ. diam.; soris uredosporiferis plerumque hypophyllis, maculis irregularibus indeterminatis pallidis insidentibus, sparsis vel paucis aggregatis, minutis, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-brunneis, 18-27 μ. diam.; soris teleutosporiferis plerumque hypophyllis, sæpe autem caulicolis, maculis rotundatis v. irregularibus flavidis insidentibus, in foliis sparsis v. in greges minutos aggregatis, rotundatis, in caule rotundatis vel sæpe elongatis et hinc inde confluentibus, pulverulentis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, verrucosis, castaneo-brunneis, 30-43 × 22-30; pedicello hyalino, brevissimo. 1033

Hab. in foliis caulibusque vivis Lactucæ perennis, altissimæ (?), quercinæ (?), sagittatæ (?), in Germania, Austria, Helvetia, Gallia, Rossia.

105. **Puccinia lactucina** Syd. Mon. Ured. vol. I, pag. 111. — Soris uredosporiferis amphigenis, plerumque hypophyllis, sine maculis, sparsis non confluentibus, minutis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo- 1034

brunneis vel brunneis, 18-27 μ. diam. vel 24-28 ≈ 18-22; soris teleutosporiferis conformibus, obscure castaneis; teleutosporis regularibus, ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, punctatis, brunneis, 34-39 ≈ 21-24, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis vivis Lactucæ scarioloidis, in prov. Kerman Persiæ austr. (Bornmueller).

106. **Puccinia Leontodontis** Jacky in Compositen-Puccin. p. 75 (1899) — Syd. Mon. Ured. vol. I, p. 114. — Soris uredosporiferis amphigenis, sparsis non confluentibus, minutis, punctiformibus, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, pallide brunneis, 25-37 μ. diam. vel 27-35 ≈ 24-27; soris teleutosporiferis conformibus, atris v. atro-brunneis; teleutosporis variabilibus plerumque ellipsoideis, ovato-ellipsoideis vel oblongis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, subtiliter verruculosis, castaneo-brunneis, 30-42 ≈ 21-27, episporio tenui; pedicello hyalino, brevi. 1035

Hab. in foliis vivis Leontodontis autumnalis, glabrati, hastilis, hispidi, incani, nigricantis, pyrenaici, squamosi, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Suecia, Serbia, Rossia, Fennia.

107. **Puccinia Mulgedii** Syd. Mon. Ured. vol. I, p. 123. — Æcidiis hypophyllis, maculis minutis flavidis indeterminatis insidentibus, solitariis v. paucis tantum aggregatis, minutis, planis, flavis; æcidiosporis globosis, subglobosis vel ovatis, subtiliter verruculosis, flavescentibus, 19-24 μ. diam.; soris uredosporiferis hypophyllis, maculis nullis vel indeterminatis, sparsis, minutissimis, pulverulentis, cinnamomeis; uredosporis globosis vel subglobosis, subtilissime echinulatis, flavis, 20-27 μ. diam.; soris teleutosporiferis hypophyllis, sparsis, minutissimis, epidermide diutius tectis dein ea cinctis, obscure brunneis, pulverulentis; teleutosporis ovoideis vel oblongis, apice rotundatis, non incrassatis, medio non constrictis, basi rotundatis subtilissime verruculosis, brunneis, 27-38 ≈ 19-24, episporio tenui; pedicello hyalino, tenui, brevi, deciduo. 1036

Hab. in foliis vivis Mulgedii alpini, aurei, macrophylli, in Germania, Austria, Gallia, Helvetia, Suecia, Norvegia Serbia.

108. **Puccinia Crepidis-leontodontoidis** R. Maire in Bull. Soc. bot. de France, année 1904, tab. 13, fig. 1. — Spermogoniis plerumque 1037

epiphyllis, lageniformibus, penicillo ostiolari valde evoluto; æcidiis plerumque hypophyllis, in maculis flavescentibus orbicularibus seu marginalibus semiorbicularibus, laxiuscule congregatis, cupulato-explanatis; pseudoperidiis albidis, margine fere integro nec revoluto; æcidiosporis subglobosis vel irregulariter polyhedricis, subtiliter verruculosis, hyalinis, guttulis oleosis aurantiacis, farctis, 13-18 × 13-14; soris uredosporiferis amphigenis, minutis, punctiformibus, maculæ flavidæ 2-3 mm. insidentibus, pulverulentis, cinnamomeo-brunneis; uredosporis ovoideis v. subglobosis, 16-23 × 14-22 episporio dilute brunneo, aculeolato, duobus, rarius tribus, poris germinationis instructo; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ovoideis vel ovoideo-ellipsoideis, 26-34 × 18-26, utrinque rotundatis, apice haud incrassatis nec ad septum constrictis, episporio brunneo, subtiliter punctulato; poro germinationis cellulæ superioris, plerumque apicali, cellulæ inferioris a septo plus minusve remoto; pedicello hyalino, valde deciduo, sæpe laterali, teleutosporam æquante vel ea breviore.

Hab. in foliis Crepidis leontodontoidis, Ajaccio Corsicæ et Avellino Ital. merid.

109. **Puccinia Picridis-strigosæ** Syd. Mon. Ured. vol. I, pag. 131, 1038
tab. VII, fig. 112. — Soris teleutosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, sparsis, interdum confluentibus, orbicularibus, mediocribus, 1-2 mm. diam., pulverulentis, atris; uredosporis immixtis, globosis vel subglobosis, echinulatis, flavo-brunneis, 24-32 μ. diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio parum constrictis, punctatis, obscure castaneo-brunneis, 32-46 × 27-32; pedicello hyalino, persistenti, circiter 16 μ. longo.

Hab. in foliis vivis Picridis strigosæ pr. Kerman Persiæ australis (Bornmueller).

110. **Puccinia altaica** Syd. Mon. Ured. vol. I, pag. 137, tab. VIII, 1039
fig. 117. — Soris teleutosporiferis foliicolis vel caulicolis, mediocribus, sparsis, hinc inde confluentibus et tunc usque 3 mm. longis, oblongis vel elongatis, epidermide plumbea nitida sæpe tectis vel semivelatis, compactis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis vel sæpius acutiusculis, valde incrassatis, usque 13 μ., medio vix leniter constrictis, deorsum attenuatis, levibus, brunneis, 43-54 × 16-25; pedicello hyalino vel hyalino-brunneolo, persistenti, crasso, usque 115 μ. longo.

Hab. in foliis caulibusque Prenanthis diversifoliæ

(Crepidis baicalensis) in regione altaica Asiæ centralis (Lédebour).

111. **Puccinia Prenanthis** (Pers.) Lindr. Mykol. Mittheil., pag. 6, in Act. Soc. pr. Fauna et Flora fennica 1901, n. 9. — Syd. Mon. Ured. vol. I, pag. 106: cfr. Sacc. Syll. VII, p. 606, n. 2157 p. p. — Æcidiis hypophyllis, raro paucis etiam epiphyllis v. petiolicolis, maculis flavis vel purpureis usque 1 cm. diam. insidentibus, in greges rotundatos vel irregulares 6 mm. latos ad nervos sæpe elongatos dispositis, primo hemisphæricis dein applanatis, flavis vel albidis, interdum flavo-purpureis; æcidiosporis globosis, subglobosis vel ellipsoideis, subtiliter verruculosis, pallide aurantiacis, 13-24 μ. diam.; soris uredosporiferis hypophyllis, maculis irregularibus pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, pulverulentis, pallide brunneis; uredosporis globosis vel subglobosis, echinulatis, flavo-brunneis, 16-24 μ. diam.; soris teleutosporiferis conformibus, epidermide fissa cinctis, atro-brunneis; teleutosporis ellipsoideis, apice rotundatis, non incrassatis, medio non constrictis, basi plerumque rotundatis, subtilissime verruculosis, brunneis, 26–36 × 16–24; pedicello hyalino, brevissimo. 1040

Hab. in foliis vivis Lactucæ (Prenanthis) muralis, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia, Dania, Suecia, Fennia, Rossia.

112. **Puccinia Prenanthis-purpureæ** (DC.) Lindr. Mykol. Mittheil. p. 7, in Act. Soc. pro Fauna et Fl. fennica 1901, n. 9. — Syd. Mon. Ured. vol. I, pag. 135: cfr. Sacc. Syll. VII, p. 606, n. 2157 p. p. — Æcidiis hypophyllis, maculis orbicularibus usque 5 mm. diam., flavis vel flavo-purpureis insidentibus, in greges rotundatos vel irregulares, usque 6 mm. latos ad nervos subinde elongatos dispositis, primo hemisphæricis dein late apertis, flavis vel albidis, interdum flavo-purpureis; æcidiosporis globosis, subglobosis v. ellipsoideis, subtiliter verrucosis, pallide aurantiacis, 15-24 × 12-20; soris uredosporiferis hypophyllis, maculis minutis flavis insidentibus, sparsis, minutissimis, punctiformibus, pulverulentis, dilute rufo-brunneolis; uredosporis globosis vel subglobosis, subtiliter echinulatis, flavidis, 17-25 μ. diam.; soris teleutosporiferis conformibus brunneis; teleutosporis ellipsoideis vel ovatis, apice rotundatis, subtilissime verruculosis, brunneis, 24-37 × 16-24, episporio tenui; pedicello hyalino brevi. 1041

Hab. in foliis vivis Prenanthis albæ, purpureæ, te-

nuifoliæ, in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Hollandia, Britannia.

113. **Puccinia Prenanthis-racemosæ** Syd. Mon. Ured. vol. I, p. 137. — Soris uredosporiferis amphigenis, maculis minutis obsoletis vel nullis insidentibus, sparsis, minutissimis, punctiformibus, epidermide fissa cinctis, pulverulentis, dilute brunneis; uredosporis globosis, subglobosis v. ellipsoideis, subtiliter echinulatis, dilute brunneis, 22-30 μ. diam.; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis v. ovatis, apice rotundatis, non incrassatis, medio non vel raro parum constrictis, basi plerumque rotundatis, subtilissime verruculosis, brunneis, 30-45 × 21-28, episporio tenui; pedicello hyalino, brevi. 1042

Hab. in foliis Prenanthis racemosæ, Saskatchewan, America bor. (E. Bourgeau).

114. **Puccinia Rhagadioli** (Pass.) Syd. Mon. Ured. vol. I, pag. 139, *Ædidium Rhagadioli* Pass.: cfr. Sacc. Syll. VII, p. 805. — Pycnidiis epiphyllis; æcidiis amphigenis, sine maculis, per totam superficiem foliarum æque sparsis, cupulatis, margine albido, laciniato, reflexo; æcidiosporis globosis v. subglobosis, subtiliter verruculosis, pallide aurantiacis, 15–26 μ. diam.; soris uredosporiferis amphigenis, maculis nullis v. minutis flavidis insidentibus, sparsis minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, subtiliter aculeatis, flavidis 20-28 μ. diam.; soris teleutosporiferis conformibus, sæpe caulicolis et tunc diu tectis, atrobrunneis; teleutosporis late ellipsoideis v. interdum subglobosis, utrinque rotundatis, apice non incrassatis, medio non constrictis, verrucosis, obscure castaneis, 30-43 × 24-32; pedicello hyalino, brevi. 1043

Hab. in foliis vivis Rhagadioli stellati, in Italia, Gallia.

115. **Puccinia sejuncta** Syd. in Ann. Mycol. 1903, vol. I, p. 326. — Pycnidiis epiphyllis, flavidis; æcidiis amphigenis, plerumque hypophyllis, vulgo per totam foliorum superficiem æque distributis, minutis, cupulatis, flavidis, margine leniter recurvato, subtiliter inciso; æcidiosporis subglobosis, angulato-globosis v. angulato verrucosis, hyalino-flavescentibus, 14-20 × 11-16; soris uredosporiferis amphigenis, maculis nullis v. vix distinctis flavescentibusque insidentibus, sparsis v. subinde etiam partem folii majorem æque obtegentibus, minutis, rotundatis v. irregularibus, epidermide fissa cinctis, pulverulentis, cinnamomeo-brunneis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis v. brunneis, 24–30 μ. diam. vel 24–32 × 22–27; soris teleutosporiferis conformibus, atro- 1044

brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel raro lenissime constrictis, subtiliter punctatis, brunneis 32-40 × 20-25, episporio tenui; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Hieracii albiflori, Falcon Valley, Washington (Suksdorf), Hieracii spec., Lisson Cal. (Holway).

116. **Puccinia variabilis** Grev. Scot. Crypt. Fl. 1823, tab. 75 et Fl. Edimb. p. 431 (1824), Syd. Ured. vol. I, p. 163. — Æcidiis amphigenis, maculis minutis indeterminatis flavis v. purpureis hinc inde confluentibus insidentibus, solitariis v. perpaucis tantum aggregatis, cupulatis, humilibus, margine laciniato albido; æcidiosporis subglobosis v. ovatis, intus aurantiacis, verruculosis, 20-25 × 15-20; soris uredosporiferis amphigenis, maculis minutissimis, flavis v. purpureis plerumque insidentibus, sparsis, minutis, punctiformibus, mox nudis, brunneis; uredosporis globosis, subglobosis vel ovatis echinulatis, brunneis, 22-32 × 19-26; soris teleutosporiferis conformibus, obscure brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, subtiliter verruculosis, brunneis, 28-40 × 18-25, episporio tenui; pedicello hyalino, sporam subæquante, sed deciduo. 1045

Hab. in foliis vivis Taraxaci officinalis, palustris, in Britannia, Italia et Suecia.

117. **Puccinia Willemetiæ** Bubák in Œst. bot. Zeits. 1902, pag. 95, Syd. Mon. Ured. vol. I, p. 183 — Soris uredosporiferis amphigenis, præcipue hypophyllis, maculis violaceo-purpureis minutis insidentibus, sparsis, minutissimis, punctiformibus, mox nudis, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis v. ovatis, echinulatis, dilute brunneis 19-26 × 17-23; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis, verruculosis, brunneis, 26-35 × 19-24, episporio tenui; pedicello hyalino, tenui, sporam æquante, sed deciduo. 1046

Hab. in foliis vivis Willemetiæ hieracioidis in Bohemia (Bubák).

118. **Puccinia sonchina** Syd. in Revista Agronomica de Portugal, 1903, n. 10, p. 351. — Soris uredosporiferis amphigenis, maculis nullis vel obsoletis insidentibus, irregulariter sparsis, minutis vel rarius confluendo mediocribus, epidermide lacerata cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ovatis, 1047

subtiliter echinulatis, flavo-brunneis, 24–27 μ. diam. vel 24-32 × 22-27; poris germinationis duobus præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel vix constrictis, subtiliter verruculosis, brunneis, 30-45 × 22-27, episporio tenui; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis v. languidis Sonchi spec., prope Beja Lusitaniæ. — An huc spectat *Uredo sonchina* Thuem., quæ viget in foliis Sonchi arvensis ad Orenburg Rossiæ? Uredosporæ duarum specierum non differunt, sed teleutosporæ in specie Thuemeniana adhuc desiderantur.

119. **Puccinia taganaensis** Magnus Ber. d. deutsch. bot. Ges. XIX, 1048
1901, p. 297, pl. XIV, fig. 1-3. — Ab affini *P. Sonchi* specifice differret uredosoris tantum uredosporas nec teleutosporas commixtas præbentibus (sed, teste cl. Sydow, differentia nimis tenuis).

Hab. in foliis Sonchi radicati, in Algeria (?) et in foliis Sonchi tenerrimi, Tunis Africæ bor. (Juel).

120. **Puccinia Podospermi** DC. Fl. franç. II, p. 595 (1805) et Syn. 1049
p. 46 (1806), Syd. Mon. Ured. vol. I, p. 133. — Pycnidiis epiphyllis; æcidiis hypophyllis, sine maculis, per totam superficiem foliorum æque sparsis, cupulatis, margine albido, laciniato, revoluto; æcidiosporis globosis, subglobosis v. ellipsoideis, dense verrucosis, pallide aurantiacis, 20-30 μ. diam.; soris uredosporiferis amphigenis, maculis nullis v. pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis vel ellipsoideis, aculeatis, brunneolis, 24-32 × 22-26; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis globoso-ellipsoideis vel ellipsoideis, utrinque rotundatis apice non incrassatis, medio non constrictis, verruculosis, castaneis, 27–40 × 22–30; pedicello hyalino, brevi.

Hab. in foliis vivis Podospermi calcitrapifolii, Jacquiniani, laciniati, in Germania, Austria, Helvetia, Gallia, Italia, Rossia.

121. **Puccinia Scorzoneræ** (Schum.) Jacky, in Composit. Puccin. p. 54 1050
(1899), Syd. Mon. Ured. vol. I, pag. 141, *Æcidiolum minutellum* Speg.: cfr. Sacc. Syll. VII, p. 774. — Pycnidiis epiphyllis; æcidiis hypophyllis, sine maculis, per totam superficiem foliorum æque sparsis, cupulatis, margine albido, laciniato, revoluto; æcidiosporis globosis, subglobosis v. ellipsoideis, pallide aurantiacis, dense verrucosis, 20-30 × 18-24; soris uredosporiferis amphigenis, maculis

nullis v. pallidis indeterminatis insidentibus, sparsis, minutis, punctiformibus, brunneis; uredosporis globosis, subglobosis vel ellipsoideis aculeatis, brunneolis, 20–32 × 20-26; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis vel ovatis, apice rotundatis, non incrassatis, medio non v. vix lenissime constrictis, basi rotundatis v. attenuatis, subtiliter verruculosis, brunneis, 27–38 × 17–26; pedicello hyalino, brevi.

Hab. in foliis vivis Scorzoneræ austriacæ, hispanicæ, humilis, purpureæ, in Germania, Austria, Hungaria, Italia, Gallia, Dania, Suecia, Rossia.

122. **Puccinia scorzonericola** Tranzsch. Ann. Mycol. 1904, p. 161. — 1051
Uredosoris primariis amphigenis, subcircinatis, pycnidia circumambientibus, epidermide rupta cinctis, brunneis, in maculis flavicantibus sitis; soris secundariis minutis, amphigenis sparsis, brunneis, senio ob teleutosporas atro-brunneis; uredosporis globosis v. ellipsoideis, 28–31 × 23–30, membrana brunnea spinulosa, binis poris germinationis prædita; teleutosporis ellipsoideis v. ovoideis, apice rotundatis, basi rotundatis vel breve attenuatis, septo non constrictis, 33-38 × 21-24, membrana castanea, minute verrucosa, æquicrassa; poris germinationis in quaque cellula subcentralibus; pedicello tenui.

Hab. in foliis Scorzoneræ humilis in Belgio, Silesia, Italia, Fennia, Rossia. — *Puccinia Plantaginis* West. (et Béreng. in Herb. meo!) huc spectat, non tamen in *Plantagine* sed in *Scorzonera humili* viget. Cfr. Tranzs. l. c.

123. **Puccinia Stephanomeriæ** Syd. Mon. Ured. vol, I, p. 157, t. IX, 1052
f. 135. — Soris teleutosporiferis amphigenis v. caulicolis, sine maculis sparsis vel paucis aggregatis, ca. 1 mm. diam., rotundatis, pulverulentis, atro-brunneis; uredosporis immixtis, globosis v. subglobosis, echinulatis, brunneis, 30–35 μ. diam ; teleutosporis ellipsoideis vel ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, rarius leniter attenuatis, subtilissime verruculosis, brunneis, 35–52 × 24-31, episporio tenui; pedicello hyalino, deciduo.

Hab. in foliis caulibusque Stephanomeriæ cichoriaceæ, San Gabriel Mts. Californiæ (Mc Clatchie).

124. **Puccinia Barkhausiæ-rhœadifoliæ** Bubák Œster. bot. Zeitschr. 1053
1902, n. 2, p. 42, Syd. Mon. Ured. vol. I, p. 65. — Pycnidiis inter æcidia sparsis, minutis, flavis, mox evanescentibus; æcidiis plerumque per totam foliorum superficiem inferiorem æque distri-

butis, rarius etiam paucis in epiphyllo evolutis, minutis, humilibus, albido-flavis, margine leniter recurvato, subtiliter inciso; æcidiosporis angulato-globosis, ovatis v. ellipsoideis, subtiliter verruculosis, flavescentibus, 18-30 × 14-20; soris uredosporiferis amphigenis, maculis nullis vix distinctis insidentibus, sparsis rotundatis, mox nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, brunneis, 17-25 × 16-22; soris teleutosporiferis amphigenis, maculis plerumque nullis insidentibus, sparsis, minutis, punctiformibus, rotundatis, atro-brunneis v. atris, pulverulentis; teleutosporis ovatis, ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio non v. leniter constrictis, basi rotundatis, punctatis, brunneis 26-42 × 20-30, episporio tenui; pedicello hyalino, tenui sporam æquante sed valde deciduo.

Hab. in foliis vivis Crepidis (Barkhausiæ) rhœadifoliæ ad Pragam Bohemiæ (Bubák).

125. **Puccinia canariensis** Syd. Mon. Ured. vol. I, p. 166. — Soris 1054
uredosporiferis amphigenis, maculis nullis v. obsoletis insidentibus, sparsis, rotundatis, epidermide fissa cinctis, pulverulentis, obscure brunneis; uredosporis globosis vel subglobosis, raro ellipsoideis, aculeatis, brunneis, 26-32 μ. diam.; soris teleutosporiferis conformibus, minutis v. mediocribus, ca. 0,5-1 mm. diam., atris v. atro-brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi rotundatis, subtiliter verruculosis, obscure brunneis, 35-42 × 26-32, episporio ca. 2 μ. crasso; pedicello hyalino, brevissimo.

Hab. in foliis vivis Thrinciæ nudicaulis, pr. Funchal, ins. Madeira (Bornmüller).

126. **Puccinia Cichorii** (D. C.) Bell. in Kickx. Fl. Fland. II, p. 65, 1055
Syd. Mon. Ured. vol. I, 49. — Soris uredosporiferis amphigenis v. caulicolis, sparsis, interdum confluentibus, minutis, pulverulentis, epidermide lacerata cinctis, cinnamomeis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, flavo-brunneis, 21-27 μ. diam.; soris teleutosporiferis amphigenis v. caulicolis, conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque rotundatis, levibus, brunneis, 27-38 × 19-25, episporio tenui; pedicello hyalino, brevi.

Hab. in foliis caulibusque Cichorii Intybi, C. Endiviæ (?) in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Belgio, Britannia, Suecia.

127. **Puccinia chondrillina** Bubák et Syd. in Œst. bot. Zeitschr. 1901, n. 1, p. 7 et 1902, n. 2, p. 94, Syd. Mon. Ured. vol. I, p. 44: cfr. Sacc. Syll. VII, p. 606, *P. Prenanthis* (Pers.) Fuck. p. p. — Soris uredosporiferis amphigenis, v. sæpe caulicolis, maculis minutis v. subnullis insidentibus, in folio sparsis, minutis, non confluentibus, in caule sparsis v. sæpe aggregatis majoribus interdum confluentibus et epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, subtiliter echinulatis, brunneis, 20-27 µ. diam. vel 24-30 × 16-24; soris teleutosporiferis plerumque caulicolis, rarius paucis etiam foliicolis, in caule sæpe confluentibus, epidermide tectis vel ea fissa cinctis, obscurioribus, minus pulverulentis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. parum constrictis subtilissime verruculosis, castaneis, 32-42 × 19-27, episporio tenui, pedicello hyalino, tenui usque 40 µ. longo, facile deciduo. 1056

Hab. in foliis, petiolis caulibusque vivis Chondrillæ junceæ in Germania, Bohemia, Italia, Gallia, Lusitania.

128. **Puccinia Cymboseridis** Syd. Mon. Ured. vol. I, p. 73, t. IV, f. 57 — Soris uredosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, rotundatis v. irregularibus, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, dilute brunneis, 21-24 µ. diam. vel 24-27 × 18-24; soris teleutosporiferis conformibus, obscure castaneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, punctatis, brunneis, 31-39 × 20-24, episporio tenui; pedicello brevi, hyalino. 1057

Hab. in foliis vivis Cymboseridis palæstinæ in monte Carmel Palæstinæ (Bornmüller).

129. **Puccinia aurata** Syd. in Ann. Mycol. 1904, pag. 349. — Soris teleutosporiferis, hypophyllis, maculis depressis, obscuris, minutis circ. 1-2 mm. diam. insidentibus, plerumque omnino in acervulum 1-2 mm. latum confluentibus et maculam totam explentibus, compactis, ochraceo-flavis; teleutosporis oblongo-clavatis, apice rotundatis non vel vix incrassatis, medio non vel parum constrictis, deorsum attenuatis, levibus, aureo-flavis, 45-60 × 14-21; pedicello hyalino usque 40 µ. longo. 1058

Hab. in foliis vivis Compositæ cujusdam indeterminatæ, Derema Africæ orient. trop. (A. Karasek).

130. **Puccinia nervincola** Lagh. in Syd. Mon. Ured. vol. I, p. 190, 1059

tab. XI, fig. 172. — Soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, sparsis v. sæpius nervos sequentibus et tunc paucis aggregatis, plerumque rotundatis, ca. 1 mm. diam., compactiusculis, alutaceo-brunneolis; teleutosporis cylindricis vel cylindrico-clavatis, apice rotundatis, truncatis v. conico-attenuatis, valde incrassatis, usque 19 μ., medio leniter constrictis, basi rotundatis v. attenuatis, levibus, pallide flavis, 135-162 × 14-22; pedicello subhyalino v. concolori, persistenti, curvulo, longissimo, usque 190 μ. longo, crasso, sæpe sporæ latitudine.

Hab. in foliis vivis Compositæ cujusdam, Panatanga Æquatoriæ (Lagerheim).

131. **Puccinia leuceriicola** Syd. Mon. Ured. vol. I, p. 118, tab. VI, f. 97. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, ca. 350-500 μ. diam., punctiformibus, compactiusculis, atro-brunneis; uredosporis immixtis, globosis v. subglobosis, subtiliter verruculosis, flavis, 24-29 μ. diam.; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, incrassatis, usque 8 μ., medio leniter constrictis, basi rotundatis vel attenuatis, levibus, dilute brunneis, apice obscurioribus, 32-50 × 17-28; pedicello hyalino, crasso, persistenti, usque 60 μ. longo; mesosporis interdum paucis immixtis. 1060

Hab. in foliis vivis Leuceriæ oligocephalæ pr. Conception in Chile (Neger).

132. **Puccinia Calyceræ-Cavanillesii** (Speg.) Sacc. et D. Sacc. *P. Calyceræ* Speg. Myc. arg. ser. II, 1902, p. 61, nec Sydow. — Acervulis cauli-foliicolis amphigenis, subrotundis, erumpenti-superficialibus, nudis, cinnamomeis, compactiusculis 0,3-1 mm. diam.; uredosporis ellipticis v. obovatis rufis, levibus, grosse 1-guttulatis, 24-30 × 24-26; teleutosporis ellipticis vel obovatis apice obtusissimis, tunica ubique subtenui vestitis, ferrugineis, levibus, 28-40 × 26-30, loculis grosse 1-guttulatis; pedicello hyalino fragilissimo 25-30 × 5-7, paraphysibus præcipue marginalibus, linearibus 50-60 × 5-6 donatis. 1061

Hab. ad caules et folia Calyceræ Cavanillesii var. sinuatæ, Puente del Juca in Argentina.

133. **Puccinia Calyceræ** Syd. Mon. Ured. vol. I, p. 192, tab. XII, f. 174. — Soris uredosporiferis amphigenis, sine maculis, sparsis v. aggregatis, minutis, rotundatis v. ellipticis, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, subtiliter echinulatis, brunneolis, 22-27 μ. diam.; soris te- 1062

leutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtilissime verruculosis, castaneis, 35-43 × 24-30, episporio ca. 3 μ. crasso; pedicello hyalino, brevissimo.

Hab. in foliis petiolisque vivis Calyceræ sessiliforæ in Argèntina (K. Reiche) et Chile (Philippi).

134. **Puccinia melanosora** Speg. — Syll. VII, p. 710. — var **tigrensis** M. Pennington Ured. Paran. p. 4 (Anales Soc. Cien. Arg. 1902). — Maculis nullis vel indeterminatis; soris hypophyllis pulverulentis; uredosporis globosis, tunicatis, non echinulatis, 23-25 μ. diam.; teleutosporis cylindraceis, leviter constrictis, fulvis, crasse tunicatis, 30-35 × 20-25; pedicello brevissimo hyalino, 4 × 2. 1063

Hab. ad folia viva Acicarphæ tribuloidis in pratis pr. San Fernando et Tigre Brasiliæ. — Dimensionibus conspicue minoribus teleutosporarum et pedicellorum a typo recedere videtur.

135. **Puccinia Nastanthi** Speg. Mycet. argent. ser. II, 1902, p 64. — Maculis nullis v. folio toto pallescenti-flavescente; acervulis amphigenis, majusculis, erumpentibus, subpulverulentis, atro-fuligineis; soris 0,5-1 mm. diam., applanatulis, sæpe confluentibus, epidermide disrupta cinctis; teleutosporis obovatis v. ellipticis obtusis, ubique subtenuiter tunicatis, intense fulvo-ferrugineis, levibus, ad septum non v. vix constrictis, 40-50 × 22, loculis subæquilongis, rarius apice subcuneatis, pedicello hyalino, 10-25 × 5-8 suffultis. 1064

Hab. ad folia viva Nastanthi agglomerati, in summis andibus Las Cuevas, in Argentina. — Species *P. Gamocarphæ* (Klotz.) Henn., nec non *P. Boopidis* Neg. affinis, sed ut videtur satis distincta.

136. **Puccinia Gilgiana** P. Henn. in Hedw. 1901, p. 95, Syd. Mon. Ured. vol. I, p. 194, tab. XII, f. 179. — Æcidiis petiolicolis v. calycicolis, partibus incrassatis leniterque deformatis insidentibus, hemisphærico-cupulatis, flavidis; æcidiosporis angulato-globosis, subtiliter verruculosis, flavidis, 15-20 μ. diam.; soris uredosporiferis caulicolis, gregariis, oblongis, epidermide fissa brunnea cinctis v. subtectis, subpulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, verruculosis, flavo-brunneis, 14-21 × 12-18; soris teleutosporiferis conformibus, atris; teleutosporis clavatis v. oblongis, apice rotundatis v. truncatis, leniter incrassatis, usque 5 μ., medio leniter constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 32-46 × 17-24; pedicello brunneolo, crassiusculo, 1065

persistenti, 30-50 μ. longo; mesosporis oblongis v. oblongo-clavatis, 26-35 × 16-22, apice magis incrassatis.

Hab. in petiolis, caulibus calycibusque vivis Leschenaultiæ linarioidis pr. Perth Australiæ occid. (Pritzel).

137. **Puccinia Dampieræ** Syd. Mon. Ured. vol. I, p. 193, tab. XII, f. 178. — Soris teleutosporiferis in alis caulium evolutis sine maculis, sparsis vel aggregatis, rotundatis vel oblongis, ca. 1 mm. diam., epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis clavatis, apice rotundatis vel acutiusculis, valde incrassatis, 8-11 μ., medio constrictis, deorsum attenuatis, rarius rotundatis, levibus, brunneis, 48-66 × 16-26; pedicello flavido, persistenti, usque 80 μ. longo; mesosporis immixtis clavatis, 40-55 × 14-22. 1066

Hab. in alis caulium Dampieræ alatæ in Australia (L. Preiss).

138. **Puccinia Ipomœæ-panduratæ** (Schw.) Syd. Mon. Ured. vol. I, pag. 323, tab. XXII, fig. 312, *Æcid. Ipomœæ-panduratæ* Schw. Syn. Fg. Carol. 1822, p. 69: cfr. Sacc. Syll. VII, p. 619, n. 2186, p. 671, n. 2322, p. 716, n. 2503. — Æcidiis hypophyllis, maculis flavidis v. flavo-brunneis orbicularibus v. irregularibus insidentibus, rarius epiphyllis, in greges rotundatos vel irregulares 1-3 mm. latos confertis, rarius solitariis, primo tectis, globulosis, subglobosis v. ellipsoideis, minutissime asperulis, flavidis, 20-24 μ. diam. vel usque 26 μ. longis, 14-16 μ. latis; soris teleutosporiferis amphigenis, æcidiis sæpe contrapositis, suborbicularibus vel irregularibus, mediocribus vel majusculis, confluentibus et tunc usque 4 mm. latis, pulverulentis, epidermide fissa cinctis, atris; teleutosporis oblongis apice in papillam obtusam pellucidam productis, medio vix vel leniter constrictis, basi rotundatis, grosse verrucosis, castaneo-brunneis, 42-62 × 22-32; pedicello hyalino, apice infuscato, persistenti, crasso usque 170 μ. longo. 1067

Hab. in foliis vivis Ipomœæ acuminatæ, commutatæ, lacunosæ, megapotamiæ, panduratæ, purpureæ, trichocarpæ, trilobæ in America bor. et austr.

139. **Puccinia commutata** Syd. Mon. Ured. vol. I, p. 201: cfr. Sacc. Syll. vol. VII, p. 669, *P. Valerianæ* Carest. p. p. — Æcidiis hypophyllis, petiolicolis v. caulicolis, in foliis greges orbiculares v. irregulares efformantibus, in petiolis caulibusque secus series plus minusve longas dispositis, maculis pallidis insidentibus, dense confertis, cupulatis, margine albo lacerato revoluto; æcidiosporis polygonis, subtiliter verrucosis, aurantiacis, 14-19 μ. diam.; soris te- 1068

leutosporiferis hypophyllis, petiolicolis v. caulicolis, in foliis sparsis v. aggregatis, subinde confluentibus, minutis, in petiolis caulibusque plerumque dense confertis confluentibusque et pustulas plus minusve longas efformantibus pulverulentis, fusco-brunneis; teleutosporis difformibus, oblongis, subfusoideis v. subclavatis, apice modice incrassatis, rotundatis v. subconoideo-attenuatis, medio non v. parum constrictis, basi attenuatis, raro rotundatis, levibus, castaneo-brunneis, 40-60 × 20-35; pedicello hyalino, deciduo, longiusculo.

Hab. in foliis, petiolis caulibusque vivis Valerianæ officinalis, tripteris, sambucifoliæ in Germania, Austria, Italia, Helvetia, Belgio, Rossia.

140. **Puccinia Anthospermi** Syd. Mon. Ured. vol. I, p. 206. — Soris 1069
teleutosporiferis hypophyllis, maculis minutis ca. 2 mm. diam, griseo-brunneis insidentibus, minutis, rotundatis, paucis aggregatis v. in unum omnino confluentibus, compactiusculis, cinnamomeo-brunneis; teleutosporis oblongis, apice rotundatis et non v. vix incrassatis vel conico-attenuatis et tunc usque 9 μ. incrassatis, medio valde constrictis, basi plerumque attenuatis, rarius rotundatis, levibus, flavis, 35-46 × 16-21, episporio tenui; pedicello hyalino, usque 30 μ. longo.

Hab. in foliis vivis Anthospermi hirti in Capite Bonæ Spei Africæ austr. (Sieber).

141. **Puccinia Bouwardiæ** Griffiths in Bull. of the Torr. Bot. Club. 1070
1902, p. 297, cum icone. — Soris teleutosporiferis epiphyllis, interdum sæpe hypophyllis, circularibus, sparsis, prominentibus, nigris, erumpentibus dein evanidis; teleutosporis subellipticis inferne rotundatis, superne luteo-umbonato-apiculatis, ad septum subconstrictis, 36-46 × 23-28, episporio crasso, tuberculato, brunneo donatis; pedicello persistenti crassiusculo 80-100 μ. longo, superne incrassatulo.

Hab. in foliis Bouwardiæ triphyllæ, in montibus Santa Catalina, Arizona, Amer. bor. — Probabiliter stat. teleut. *Æcidii Bouwardiæ* Diet.

142. **Puccinia Borreriæ** Syd. Mon. Ured. vol. I, pag. 209. — Soris 1071
teleutosporiferis hypophyllis, maculis indeterminatis brunneolis insidentibus, sparsis v. laxe aggregatis, minutis, rotundatis, compactis, atro-brunneis; teleutosporis ellipsoideis, ovato-ellipsoideis v. oblongo-ovatis, apice rotundatis, minoribus vix vel leniter incrassatis, majoribus plerumque magis incrassatis, usque 11 μ., me-

dio non v. vix constrictis, basi rotundatis, levibus, brunneis, 24–41 × 16-24, episporio subtenui, ca. 2 μ. crasso; pedicello apice brunneolo, tenui, persistenti, usque 100 μ. longo, vix oblique inserto.

Hab. in foliis vivis Borreriæ angustifoliæ ad fluv. Longa Africæ aust. (Baum).

143. **Puccinia Houstoniæ** Syd. in Hedw. 1901, p. 26, Mon. Ured. vol. I, p. 222, tab. XIII, f. 200. — Soris teleutosporiferis hypophyllis, maculis flavidis v. brunneolis determinatis v. indeterminatis insidentibus, minutis, sparsis v. plerumque dense aggregatis et subinde confluentibus, rotundatis, pulvinatis, primo flavidis, dein flavo-brunneis, tandem brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis, incrassatis 4-7 μ., medio non vel vix constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 32-45 × 16-24, episporio tenui; pedicello hyalino, crasso, persistenti, usque 75 μ. longo. 1072

Hab. in foliis vivis Houstoniæ angustifoliæ, Austin, Texas Americæ bor. (Long).

144. **Puccinia Opercularіæ** Syd. Mon. Ured. vol. I, p. 224, tab. XIV, f. 203. - Soris teleutosporiferis hypophyllis, maculis orbicularibus fusco-griseis usque 5 mm. diam., insidentibus, solitariis v. paucis in quaque macula aggregatis, minutis, rotundatis, compactis, rufo-brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis, rarius truncatis v. leniter acutiusculis, incrassatis, usque 8 μ., medio constrictis, basi rotundatis v. attenuatis, levibus, flavis 35-54 × 14-20; pedicello hyalino, firmo, usque 100 μ. longo. 1073

Hab. in foliis vivis Opercularіæ asperæ, Genoa River Australiæ (F. v. Müller).

145. **Puccinia Otiophoræ** Syd. Mon. Ured. vol. I, p. 224, tab. XIV, f. 204. — Soris teleutosporiferis hypophyllis, maculis minutis 1-2 mm. diam. rotundatis, depressulis brunneis insidentibus, sparsis, non confluentibus, rotundatis $^1/_2$-$^3/_4$ mm. diam., compactis, cinnamomeis; teleutosporis clavulatis, apice rotundatis, non incrassatis, medio constrictis, basi attenuatis, levibus, hyalino-flavescentibus 35-43 × 10-16, episporio tenuissimo; pedicello hyalino, persistenti, sporam æquante. 1074

Hab. in foliis vivis Otiophoræ subcapitatæ, Andrangoloaka ins. Madagascar cent. (J. M. Hildebrandt).

146. **Puccinia Pentanisiæ** Cooke — Syll. VII, p. 645. — var. **Pentagynæ** P. Henn. in Bot. Ergebn. der Kunene-Sambesi Expedit. 1075

pag. 3 (1902), Syd. Mon. Ured. Mon. Ured. vol. I, p. 225. — Teleutosporis longe pedicellatis, pedicello usque 90 μ. longo. Cetera typi.

Hab. in foliis vivis Pentanisiæ pentagynæ, ad flum. Kubango Africæ austr. (Baum).

147. **Puccinia rubiivora** P. Magn. in Ber. Deuts. Bot. Ges. 1901, p. 297, tab XIV, fig. 4-16, Syd. Mon. Ured. vol. I, p. 227. — Æcidiis hypophyllis, maculis rufo-brunneis insidentibus, in greges minutos paucis laxe dispositis, cupulatis, margine inciso albido; æcidiosporis globoso-angulatis, verruculosis, flavidis, 22-29 × 16-25; soris teleutosporiferis epiphyllis, sine maculis, sparsis v. subinde binis trinis dispositis, ca. 1 mm. diam., pulverulentis, atris; teleutosporis variabilibus, plerumque ovato-oblongis v. oblongis, apice rotundatis, truncatis v. obtuse et oblique acuminatis, non v. vix incrassatis, medio non vel parum constrictis, basi rotundatis vel attenuatis, punctulatis, brunneis, 30-60 × 20-32; pedicello hyalino, persistenti, crasso, usque 70 μ. longo. 1076

Hab. in foliis vivis Rubiæ fruticosæ pr. Tafira, Gran Canaria ins. Canar. (Bornmüller).

148. **Puccinia rubiicola** Syd. Mon. Ured. vol. I, p. 226, tab. XIV, f.. 207. — Soris uredosporiferis epiphyllis, maculis indeterminatis flavo-brunneolis insidentibus, sparsis, minutis, epidermide fissa cinctis, subpulverulentis, cinnamomeis; uredosporis globosis vel ovatis, echinulatis, flavo-brunneis, 26-30 μ. diam. vel 30-36 × 22-25, episporio ca. 3 μ. crasso; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis oblongis v. clavatis, apice rotundatis v. acutiusculis, valde incrassatis, usque 11 μ., medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneis, 35-54 × 12-19; pedicello hyalino, tenui, fragili, usque 60 μ. longo. 1077

Hab. in foliis Rubiæ discoloris in Abyssinia (Schimper).

149. **Puccinia Galii-elliptici** R. Maire in Bull. Soc. Bot. de France année 1904, pag. 215. — Soris amphigenis, præcipue hypophyllis, in maculis purpureis arescentibus insidentibus, minutis, rotundatis, pulvinatis, cinnamomeo-brunneis; uredosporis globosis v. ovoideis; episporio aculeato, brunneo, duobus, rarius tribus, poris prædito, 20-30 × 20-26; teleutosporis in soris uredosporiferis mox evolutis, clavatis vel clavato-oblongis, medio constrictis, loculo superiore apice rotundato vel retuso, 7-8 μ. incrassate poro germinationis subapicali prædito, brunneis, 37-60 × 20-28; pedicello hyalino spora sæpius breviore, circiter 40-50 × 6-9. 1078

Hab. in foliis vivis Galii-elliptici, prope Sartena Corsicæ.

150. **Puccinia syriaca** Syd. Mon. Ured. vol. I, pag. 211, tab. XIII, 1079
f. 194 (Rov. 1902), *Pucc. ansata* Lindr. in Act. Soc. Faun. et Fl. fenn. 1902 Dec., pag. 17. — Soris hypophyllis v. caulicolis, sine maculis, sparsis, solitariis, rotundatis v. oblongis, ca. 1 mm. longis, epidermide cinerea diu tectis, pulverulentis, atro-brunneis; uredosporis subglobosis, tenuiter spinulosis, 18–23 × 16-22, poris 3-5; teleutosporis difformibus, ellipsoideis v. oblongis, apice rotundatis v. truncatis, leniter incrassatis, usque 5 μ. medio parum constrictis, basi plerumque rotundatis, levibus, brunneis, 30-40 × 20-30; pedicello tenui hyalino, brevi, subdeciduo.

Hab. in foliis caulibusque Crucianellæ syriacæ, macrostachyæ in Syria (Haussknecht), Crucianellæ græcæ, distichæ in Græcia et Phrygia (Heldreich, Balansa).

151. **Puccinia asperulina** (Juel) Lagh. apud Vestergr. Microm. rar. 1080
selecti n. 258 (1901), Syd. Mon. Ured. vol. I, p. 207: cfr. Sacc. Syll. XIV, p. 381, *Æcidium asperulinum* Juel. — Æcidiis præcipue hypophyllis, sæpe per totam superficiem foliorum æque sparsis, folia infecta flavida reddentibus, cupulato-cylindraceis, margine profunde lacerato, albido, recurvato; æcidiosporis globoso-polygoniis, verruculosis, hyalino-flavescentibus, 15–20 μ. diam.; soris uredosporiferis hypophyllis, paucis, sparsis, minutissimis, dilute brunneis; uredosporis globosis, subglobosis v. ovato-ellipsoideis, subtilissime echinulatis, flavis, 22-28 × 18-24; soris teleutosporiferis hypophyllis, paucis, sparsis, minutissimis, pulverulentis, diutius epidermide tectis, brunneis; teleutosporis subcutaneis, oblongo-clavatis v. clavatis, apice rotundatis v. interdum truncatulis, non v. lenissime incrassatis, medio vix v. leniter constrictis, basi attenuatis, levibus, flavo-brunneolis, 40–50 × 15-26, episporio tenuissimo; pedicello flavido brevi.

Hab. in foliis vivis Asperulæ tinctoriæ in Suecia et Rossia.

152. **Puccinia dimorpha** Syd. Mon. Ured. vol. I, p. 227, tab. XIV, 1081
f. 208. — Soris teleutosporiferis hypophyllis v. rarius amphigenis, sparsis v. circinatim dispositis, 1-2 mm. diam., mox nudis, obscure castaneo-brunneis, in caule pulviniformibus oblongis v. elongatis crassioribus; teleutosporis clavatis, apice rotundatis vel raro acutiusculis, valde incrassatis, usque 13 μ. et obscurioribus, medio constrictis, basim versus in pedicellum attenuatis, levibus, brunneolis 45–75 μ. longis, loculo superiore subgloboso vel raro ellipsoideo

20-34 μ. lato, inferiore 19-24 μ. lato; pedicello hyalino, firmo, crasso, usque 68 μ. longo.

Hab. in foliis caulibusque vivis Rubiæ petiolaris pr. Boschberg Africæ australis (Mac Owan).

153. **Puccinia Blepharidis** P. Henn. Bot. Ergeb. der Kunene-Sambesi Expedit. p. 2 (1902), Syd. Mon. Ured. vol. I, p. 231. — Æcidiis plerumque hypophyllis, maculis indeterminatis flavidis v. fuscidulis insidentibus, sparsis v. sæpius paucis laxe orbiculariter dispositis, cupulatis, margine fimbriato; æcidiosporis angulato-globosis, punctatis, flavidis, 15-22 × 12-19; soris teleutosporiferis amphigenis, sæpius epiphyllis, interdum æcidiis intermixtis, sparsis v. paucis irregulariter laxeque aggregatis v. suborbiculariter dispositis, minutis, epidermide bullata diutius tectis, compactis, atro-brunneis; teleutosporis variabilibus, ovato-oblongis v. oblongo-clavatis, apice rotundatis v. rarius acutiusculis, plus minusve incrassatis 5-11 μ., medio non v. leniter constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 35-58 × 18-28; pedicello brunneo persistenti, crassiusculo, sporam æquante; mesosporis subinde paucis immixtis. 1082

Hab. in foliis vivis Blepharidis Buchneri pr. Manouge Africæ austr. (Baum).

154. **Puccinia Anisacanthi** Diet. et Holw. in Bot. Gaz. XXXI, p. 329, 1901, Syd. Mon. Ured. vol. I, p. 230, tab. XIV, f. 211. — Soris uredosporiferis amphigenis, sparsis, minutis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, remote echinulatis, flavo-brunneis, 22-28 × 16-24, poris germinationis binis instructis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, sæpe apice papillato-incrassatis, medio vix vel leniter constrictis, verrucosis, obscure castaneo-brunneis, 36-48 × 24-32, episporio ca. 2,5 μ. crasso, cellula inferiore interdum sub septo etiam papillula lata instructa; pedicello hyalino, crasso flexuoso, subinde laterali, usque 110 μ. long. 1083

Hab. in foliis Anisacanthi (Wrightii?) pr. Acamboro, Mexico (Holway).

155. **Puccinia Ruelliæ-Bourgæi** Diet. et Holw. in Bot. Gaz. XXXI, p. 329, 1901, Syd. Mon. Ured. vol. I, p. 235, t. XV, f. 216. — Æcidiis in greges irregulares secus venas dispositis; æcidiosporis globosis v. ellipsoideis, sæpe angulosis, verrucosis, apice valde incrassatis, flavescentibus, 25-38 × 20-26; soris uredosporiferis punctiformibus, pulverulentis, brunneis; uredosporis globosis v. subglobosis, echinulatis, flavo-brunneis; 21-26 μ. diam.; soris teleuto- 1084

sporiferis conformibus, atro-brunneis, teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, verrucosis, atro-brunneis, 32-40 × 24-31; pedicello hyalino, flexuoso, persistenti, firmo, crasso, usque 95 μ. longo, sæpe oblique inserto.

Hab. in foliis vivis Ruelliæ Bourgæi, Chapala, Mexico (Holway).

156. **Puccinia Longiana** Syd. in Hedw. 1901, p. 126 et Mon. Ured. vol. I, p. 234. — Soris uredosporiferis, amphigenis, sine maculis, sparsis, minutis punctiformibus, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis, aculeatis, flavo-brunneis, 22-28 μ. diam.; soris teleutosporiferis conformibus, epidermide fissa cinctis, atris v. atro-brunneis; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, plerumque leniter incrassatis, usque 5 μ., medio non v. lenissime constrictis, basi rotundatis, subtilissime verruculosis v. tantum punctatis, obscure castaneo-brunneis, 33-48 × 24-32; pedicello hyalino, crasso, sæpe oblique inserto, usque 40 μ. longo. 1085

Hab. in foliis vivis Ruelliæ tuberosæ (?) Austin, Texas (Long).

157. **Puccinia exitiosa** Syd. et Holw. in Syd. Mon. Ured. vol. I, p. 245. — Soris teleutosporiferis hypophyllis vel sæpe gemmas et calyces ex toto tegentibus, in folio (ut videtur) rotundatis v. ovatis, ca. 2-4 mm. longis, in gemmis calycibusque plerumque late extensis et confluentibus pulverulentis, cinnamomeo-brunneis; teleutosporis valde regularibus, ellipsoideis, utrinque rotundatis, apice non v. lenissime incrassatis, usque 3 μ., medio non v. parum constrictis, verruculosis, brunneis, 28-33 × 16-21; pedicello hyalino, brevissimo. 1086

Hab. in foliis, gemmis calycibusque Tecomæ mollis, Patzcuaro, Mexico (Holway).

158. **Puccinia appendiculatoides** P. Henn. Fungi Amaz. I, p. 186, Hedw. 1904. — Maculis rotundatis vel effusis, brunneolis; uredosoris minutis, flavidulis; uredosporis subglobosis vel ellipsoideis, subcastaneis, verrucosis 30 × 20 μ.; teleutosoris hypophyllis aggregatis, pulverulentis, ferrugineis; teleutosporis late ellipsoideis vel subcuboideis, utrinque rotundatis vel applanatis, apice vix incrassatis, papilla hyalina subhemisphærica ca. 3 μ. ornatis, dense grosse verrucosis, medio 1-septatis constrictis, castaneis, 30-38 × 22-26 μ.; pedicello hyalino vel flavido, tereti, ca. 40-60 × 4-4½ μ., ad 1087

basin appendiculis hyalinis versiformibus, repetito lobatis vel subpalmatifidis.

Hab. in foliis Bignonianæ cujusdam, Rio Juruá, Miry Amer. merid. — Affinis *P. appendiculatæ* sed teleutosporis minoribus hyalino-apiculatis recedit.

159. **Puccinia Memoræ** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904) 1087
— Maculis flavidulis vel fuscidulis, parvis vel indeterminatis; soris hypophyllis sparsis vel subgregariis, minutis, hemisphæricis, diutius tectis, flavidulis; uredosporis subglobosis, brunneis, aculeatis, 18-24 µ.; teleutosporis subellipsoideis, articulis globosis, facile secedentibus, apice rotundatis haud incrassatis, brunneis, episporio castaneo levi, tenui; pedicello ca. 12 × 4, hyalino.

Hab. in foliis Memoræ (*Bignoniaceæ* spec., Perù, Rio Huallaga, Tarapoto, Amer. merid.

160. **Puccinia Gerardiæ** Syd. Ann. Mycol. 1903, p. 18. — Soris teleu- 1089
tosporiferis foliicolis v. caulicolis, minutis, in foliis aggregatis et ea plerumque incurva reddentibus, ut videtur, in caulibus, in greges irregulares v. elongatos usque 6 mm. longos dispositis, compactiusculis, atro-brunneis; teleutosporis ellipsoideis, ovatis v. oblongis, apice plerumque rotundatis, incrassatis, usque 8 µ., medio constrictis, basi rotundatis v. attenuatis, levibus, brunneis, 28-42 × 15-20; pedicello subhyalino, persistenti, crassiusculo, usque 80 µ. longo.

Hab. in foliis caulibusque Gerardiæ tenuifoliæ, Mount Carmel, Illinois Americæ bor. (M. B. Waite).

161. **Puccinia Adenostegiæ** Arthur in Bull. of the Torr. Bot. Club 1090
1902, pag. 231. — Soris teleutosporiferis caulinis, in circulum dispositis, erumpentibus, subnudis; teleutosporis oblongis, 15-22 × 45-67, ad septum paullo constrictis, apice obtusis, acutis v. acuminatis, crasse tunicatis, basi parce constrictis, pedicello exili, interdum colorato, sporæ æquilongo vel breviori donatis.

Hab. in foliis Adenostegiæ pilosæ (= Cordylanthus) prope Stanford, Cal., Amer. bor.

162. **Puccinia Œderi** Blytt in Christiania Vidensk Selsk. Forhand. 1091
1886, n. 6, p. 54, Syd. Mon. Ured. vol. I, p. 250, tab. XVI, f. 237. — Soris teleutosporiferis epiphyllis, sine maculis, sparsis, minutis v. mediocribus, ca. 1-1½ mm. diam., sed ægre conspicuis, epidermide diutius tectis, rotundatis, tandem liberis vel subliberis, pulverulentis, castaneis; teleutosporis oblongis v. subfusoideis, apice rotundatis v. attenuatis, non incrassatis, medio leniter constrictis, basi rotundatis v. attenuatis, subtiliter verruculosis, flavo-brun-

neis, 30-38 × 11-15; pedicello hyalino, gracili, deciduo, usque 25 µ. longo.

Hab. in foliis vivis Pedicularis Œderi in Norvegia (Blytt, C. Bock).

163. **Puccinia Veronicæ** Schroet. Pilze Schles. 1889, p. 347, Syd. Mon. Ured. vol. I, p. 256. — Soris teleutosporiferis hypophyllis, maculis orbicularibus brunneis insidentibus, minutis, sparsis v. orbiculatim dispositis, rotundatis, initio flavo-brunneis, dein brunneis; teleutosporis fusoideis, apice plerumque rotundatis, incrassatis, usque 5 µ., medio non v. vix constrictis, basi attenuatis, levibus, flavescentibus v. dilutissime brunneolis, 28-36 × 10-12; pedicello hyalino, persistenti, teleutosporam æquante vel ea breviore. 1092

Hab. in foliis vivis Veronicæ montanæ in Germania, Austria, Britannia, Belgio, Dania.

164. **Puccinia Cestri** Diet. et P. Henn. in Hedw. 1902, p. 295, Syd. Mon. Ured. vol. I, p. 262. — Soris teleutosporiferis hypophyllis, maculis fuscidulis rotundatis insidentibus, sparsis, primo tectis, brunneolis, dein nudis, citrinis, rotundato-discoideis, majusculis, ca. 1-2,5 mm. diam., ceraceis; teleutosporis subfusoideis v. fusoideo-clavatis, apice subrotundatis, non v. vix incrassatis, medio non v. vix constrictis, basi attenuatis, levibus, hyalino-flavescentibus, 60-100 × 11-16, episporio tenuissimo; pedicello primo brevi, dein plus minusve elongato et usque 200 µ. longo, crasso, hyalino, fistuloso, persistenti. 1093

Hab. in foliis vivis Cestri spec., Serra da Cantareira, San Paulo Brasiliæ et in Æquatoria.

165. **Puccinia turgida** Syd. Mon. Ured. vol. I, p. 266, tab. XVII, f. 250. — Soris uredosporiferis, amphigenis, sine maculis, sparsis, ca. $^1/_2$–$^3/_4$ mm. diam., orbicularibus, punctiformibus, epidermide fissa cinctis, pulverulentis, brunneis; uredosporis ovatis v. ellipsoideis, aculeatis, flavis, 35-43 × 14-27; soris teleutosporiferis conformibus, atro-brunneis, teleutosporis ellipsoideis, apice rotundatis, rarissime leniter acutiusculis, non incrassatis, medio vix constrictis, basi rotundatis, dense verrucosis, opacis, atro-brunneis, 40-55 × 28-37, episporio 4-5 µ. crasso; pedicello hyalino, crasso, cylindrico, medio subito usque ad basim valde inflato, hinc parte infera omnino globosa, toto 50-60 µ. longo interdum oblique inserto. 1094

Hab. in foliis vivis Lycii europæi, Jericho Palæstinæ (Bornmüller).

166. **Puccinia imitans** Syd. Mon. Ured. vol. I, p. 273, tab. XVIII, f. 261. — Soris teleutosporiferis hypophyllis, per totam superficiem æque distributis v. in greges rotundatos v. irregulares confertis et tunc sæpe maculis flavis insidentibus, minutis, nudis, compactis, pulvinatis, atro-brunneis; teleutosporis variis ellipsoideis, oblongis v. oblongo-clavulatis, apice rotundatis v. acutiusculis, valde incrassatis, usque 11 μ., medio plerumque leniter constrictis, basi rotundatis v. attenuatis, levibus, dilute flavo-brunneis, 30–48 × 15-24; pedicello hyalino, persistenti, crassiusculo, usque 100 μ. longo. 1095

Hab. in foliis vivis Solani spec. prope Quito Æquatoriæ (Lagerheim).

167. **Puccinia huallagensis** P. Henn. Fungi Amaz. I, p. 158 (Hedw. 1904). — Maculis atroferrugineis rotundatis; soris hypophyllis, aggregato-compactis, cinnamomeis vel fuscis; teleutosporis clavatis, apice rotundatis, paulo usque ad 4 μ. incrassatis, medio 1-septatis, constrictis, 30-40 × 15-23, episporio subtenui, levi, brunneo; pedicello brevi vel elongato, hyalino-fuscidulo, 4-5 μ. crasso. 1096

Hab. in foliis Solani spec., Perù, Cerro de Ponasa, Amer. merid. — Affinis *P. claviformi* sed soris compactis, sporis, proportione angustioribus diversa.

168. **Puccinia Pittieriana** P. Henn. F. Costaric. und Par. p. 147 (Hedw. 1904). — Maculis fuscidulis sparsis, soris hypophyllis pulvinatis, aggregatis, ferrugineis; teleutosporis ellipsoideis, ovoideis vel subcuboideis, apice rotundatis vel applanatis, paulo, interdum usque ad 5 μ., incrassatis, medio 1-septatis haud vel paulo constrictis, 20-30 × 16–22 μ., episporio flavobrunneo, levi, pedicello usque ad 60 × 6 μ., hyalino-flavido; mesosporis ovoideis vel subclavatis 20–25 × 13-18 μ. intermixtis. 1097

Hab. in foliis Solani tuberosi, Vulkan Irazu, Costarica Amer. centr. (Pittier). — *P. Negerianæ* affinis, sed sori aliter offormati, mesosporæ præsentes etc.

169. **Puccinia Chamæsarachæ** Syd. Mon. Ured. vol. I, p. 263, t. XVII, f. 247. — Æcidiis hypophyllis, rarius paucis etiam epiphyllis, irregulariter sparsis vel sæpe totam paginam folii occupantibus, sed in greges haud dispositis, cupulatis, albidis, margine lacerato; æcidiosporis subglobosis v. angulatis, verruculosis, hyalino-flavescentibus, 18–22 μ. diam.; soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, sine maculis, plerumque totam superficiem foliorum occupantibus, minutis, valde pulverulentis, viola- 1098

ceo-brunneis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio constrictis, levibus, brunneis, 27–40 × 16–22; pedicello hyalino, tenui, fragili, usque 55 μ. longo.

Hab. in foliis petiolisque vivis Chamæsarachæ nanæ in Nevada et California Americæ bor.

170. **Puccinia ballotæflora** Long in Bull. Torr. Bot. Cl. 1902, p. 116, 1099
f. 7, Syd. Mon. Ured. vol. I, p. 294. — Soris teleutosporiferis plerumque hypophyllis, sparsis, minutis, usque 1 mm. diam., pulverulentis, atris; uredosporis immixtis globosis, subglobosis vel ovatis, echinulatis, dilute brunneis, 20–28 μ. diam.; teleutosporis ovato-ellipsoideis v. ellipsoideis, apice papilliformiter incrassatis, medio leniter constrictis, verrucosis, castaneo-brunneis, 37–50 × 24–30; pedicello hyalino, apice fulvo, usque 90 μ. longo, sæpe oblique inserto.

Hab. in foliis vivis Salviæ ballotæfloræ, San Marcos, Texas Americæ bor. (Long). — Affinis *P. farinaceæ*. Septum sæpe obliquum; mesosporæ rariores.

171. **Puccinia bithynica** P. Magn. in Syd. Mon. Ured. vol. I, p. 295, 1100
tab. XIX, f. 281. — Soris teleutosporiferis hypophyllis, rarius paucis etiam epiphyllis, maculis indeterminatis flavis insidentibus, subinde petiolicolis, minutis, rotundatis, aliis sparsis v solitariis, aliis in greges rotundatos v. irregulares 2–5 mm. latos aggregatis et subinde subconfluentibus, compactis, atris; teleutosporis oblongis, forma et præcipue magnitudine variabilibus, plerumque utrinque rotundatis, apice valde incrassatis, usque 14 μ., medio constrictis, levibus, brunneis, apice obscurioribus, 38–62 × 16–28, rarius usque 32 μ. latis; pedicello hyalino, crasso persistenti, usque 130 μ. longo.

Hab. in foliis vivis Salviæ pomiferæ pr. Kissamos ins. Cretæ (Reverchon), S. bithynicæ pr. Brussa Bithyniæ (Bornmüller), S. grandifloræ in Rossia.

172. **Puccinia farinacea** Long in Bull. Torr. Bot Cl. 1902, p. 115, 1101
f. 6, Syd. Mon. Ured. vol. I, p. 293, tab. XX, f. 277. — Soris uredosporiferis amphigenis, maculis nullis v. vix manifestis insidentibus, sparsis, minutis, ca. $^1/_2$–$^3/_4$ mm. diam., rotundatis, pulverulentis, brunneis; uredosporis globosis, subglobosis v. ellipsoideis echinulatis, dilute brunneis, 19–27 μ. diam.; soris teleutosporiferis conformibus, ca $^3/_4$-1 mm. diam., atris; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice leniter incras-

satis, usque 3 μ., medio non constrictis, subtiliter, præcipue apicem versus, verruculosis, obscure brunneis, 24-35 × 22-30; pedicello hyalino, firmo crassiusculo, usque 70 μ. long.

Hab. in foliis vivis Salviæ farinaceæ, Austin, Texas Americæ bor. (Long).

173. **Puccinia Gillesii** Speg. Myc. Arg. Ser. I, in Ann. Soc. Cient. 1102
Arg. 1899, p. 265. — Maculis nullis; acervulis amphigenis, sparsis, rarius pauci-gregariis sed non confluentibus, difformibus, 0,5-1,5 mm. diam., erumpenti-prominulis, aterrimis, subpulverulentis; teleutosporis ellipticis vel subovatis, 40-45 × 30, medio 1-septatis non v. vix constrictis, episporio crassiusculo apice leniter umbonato et sublevi, ceterum dense majusculeque papilloso vestitis, subopace atro fuligineis, pedicello hyalino crassiusculo, 50-75 × 6-8 subpersistente fultis.

Hab. in foliis vivis Salviæ Gillesii pr. Córdoba Argentinæ.

174. **Puccinia griseola** Lagh. in Syd. Mon. Ured. vol. I, pag. 296, 1103
tab. XX, fig. 283. — Soris teleutosporiferis hypophyllis, maculis nullis vel vix distinctis insidentibus, sparsis, solitariis, minutis, rotundatis, compactis, pallidis, griseo-flavidis; teleutosporis oblongo-clavatis vel clavatis, apice plerumque rotundatis, incrassatis, 2-6 μ., medio constrictis, basim versus attenuatis, levibus, hyalinis v. subhyalinis 40-68 × 12-19; pedicello hyalino brevi.

Hab. in foliis vivis Salviæ spec, San Jorge Æquatoriæ (Lagerheim).

175. **Puccinia mitrata** Syd. Mon. Ured, vol. I, p. 294, tab. XIX, 1104
f. 279. — Soris teleutosporiferis hypophyllis, maculis nullis v. obsoletis insidentibus, sparsis v. interdum subgregariis, minutis, $^1/_2$-1 mm. diam., pulverulentis, atro-brunneis; uredosporis immixtis, plerumque globosis, dense valideque aculeatis, brunneis 18-22 μ. diam.; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice papilla lata humili dilutiore instructis, medio non v. vix constrictis, verrucosis, castaneo-brunneis, 30-42 × 26-32, episporio ca. 5 μ. crasso; pedicello hyalino, persistenti, crasso, deorsum tenuiore, usque 90 μ. longo, flexuoso.

Hab. in foliis vivis Salviæ mexicanæ, Patzcuaro, Mexico (Seler).

176. **Puccinia obesa** Syd. Mon. Ured. vol. I, pag. 289, tab. XIX, 1105
fig 272. — Æcidiis hypophyllis v. petiolicolis, in folio maculis minutis brunneolis insidentibus solitariis v. paucis tantum aggregatis, in petiolo sæpe deformato et incrassato curvatoque compluribus

laxe aggregatis, cylindraceis, aliis margine revoluto profunde inciso; æcidiosporis globosis v. subglobosis, verrucosis, subhyalinis 24–32 μ. diam., episporio crasso ca. 3 μ.; soris uredosporiferis epiphyllis, singulis interdum hypophyllis, sine maculis, sparsis, rotundatis $^1/_2$-$1^1/_2$ mm. diam., ferrugineis; uredosporis globosis vel subglobosis, remote aculeatis, flavis, 28–36 μ. diam., episporio cr. 6-7 μ.; soris teleutosporiferis, rufo-ferrugineis; teleutosporis subglobosis v. late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non constrictis, castaneo-brunneis, verrucis planis instructis, 40-46 × 31–36, episporio crasso, ca. 9 μ.; pedicello hyalino, persistenti, crassiusculo, usque 80 μ. longo.

Hab. in foliis petiolisque vivis Salviæ Gillesii in prov. Córdoba Argentinæ (Hieronymus).

177. **Puccinia rœsteliiformis** Lagh. in Syd. Mon. Ured. vol. I, p. 292, 1106
tab. XIX, fig. 275. — Æcidiis hypophyllis, maculis indeterminatis brunneolis insidentibus, solitariis, longe cylindraceis, usque 2,5 mm. long., albis, margine lacerato; æcidiosporis globosis, subglobosis v. ellipsoideis, grosse verrucosis, subhyalinis, 27–38 μ. diam.; soris teleutosporiferis hypophyllis, eisdem maculis insidentibus, sparsis, vix confluentibus, minutis, rotundatis, compactiusculis, subtremelloideis, cinnamomeis; teleutosporis longe cylindraceis, apice rotundatis, incrassatis, 2,5-6 μ., medio leniter constrictis, basi plerumque truncato-rotundatis, levibus, flavescentibus, 100-162 × 16-25; pedicello hyalino, persistenti, sporæ crassitudine, longissimo, usque 200 μ. longo.

Hab. in foliis vivis Salviæ spec., Guayrascaja Æquatoriæ (Lagerheim).

178. **Puccinia Salviæ** Ung. Einfl. des Bodens etc. 1836, p. 218, Syd. 110
Mon. Ured vol. I, p. 296, *Pucc. Salviæ-glutinosæ* Ces. in Sacc. Myc. ven. n. 130: cfr. Sacc. Syll. VII, p. 688, n 2374, p. p. – Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus indeterminatis, centro brunneis sæpe flavo-cinctis insidentibus, sparsis, solitariis, minutis, punctiformibus, compactis, griseo-brunneis; teleutosporis ellipsoideis v. oblongis, apice papilla subverruciformi obtusa v. leniter acutiuscula subinde laterali auctis, medio non v. vix constrictis, basi rotundatis, levibus, brunneis 30-52 × 15-24; pedicello hyalino, persistenti, usque 75 μ. longo.

Hab. in foliis vivis Salviæ glutinosæ in Germania, Austria, Helvetia, Italia, Romania, Rossia.

179. **Puccinia Rübsaameni** P. Magn. in Berichte Deut. Bot. Gesell. 1108

1904, p. 344, t. XX (absque diagnosi). — Matricem microphyllam et cladomaniacam (*scopazzi*) reddens; teleutosoris tantum notis, absque paraphysibus (colore et magnitudine non indicatis); teleutosporis (ex icone) ellipsoideis medio constrictis, utrinque rotundatis, 30,7 × 19,7, tunica æqualiter modice incrassata levi; poris germinativis in quaque cellula singulis, lateralibus; pedicello longo deciduo (subnullo ex icone).

Hab. in Origano vulgari (in caulibus tantum?) Remagen Germaniæ (Ew. H. Rübsaamen).

180. **Puccinia caulincola** Schneid. in 48 Jahr. der Schl. Ges. für 1109
valterl. Cultur, 1870, p. 120, Syd. Mon. Ured. vol. I, p. 301, *Pucc. Schneideri* Schroet. (1879) — Sacc. Syll. VII, p. 677.

Hab. in foliis, petiolis caulibusque Thymi angustifolii, Chamædryos, pannonici, Serpylli, Origani vulgaris (?) in Germania, Austria, Hungaria, Helvetia, Gallia, Britannia, Suecia, Dania.

181. **Puccinia leonotidicola** P. Henn. in Bot. Ergebn. der Kunene 1110
Sambesi Exped. 1902, p 3, Syd. Mon. Ured. vol. I, p. 280. — Soris uredosporiferis amphigenis, maculis indistinctis flavo-fuscis insidentibus, sparsis v. subaggregatis, minutis, ca. 1 mm. diam., pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, echinulatis, brunneis 21–25 μ. diam.; soris teleutosporiferis amphigenis, maculis indistinctis flavo-fuscis insidentibus, sparsis, minutis, ca. ½ mm. diam., subpulverulentis, brunneis; teleutosporis ellipsoideis, apice rotundatis, late papilliformiter incrassatis, usque 5 μ., medio non vel vix constrictis, basi rotundatis, levibus, flavo-brunneolis, 25-32 × 18-23; pedicello hyalino, crassiusculo, sporam æquante.

Hab. in foliis vivis Leonotidis nepetifoliæ ad fluv. Longa Africæ austr. (Baum).

182. **Puccinia Micromeriæ** Dudley et Thomps. in Journ. of Mycol. 1111
1904, p. 54. — Æcidiis hypophyllis in soros dense sparsos v. caulogenos 6-10 × 3-4,5 mm. dispositis, basi hemisphæricis, superne longe cylindraceis, margine irregulariter denticulatis, non revolutis; æcidiosporis anguloso-ovoideis, oblongis v. globosis, hyalinis, minute denseque verrucosis, 25-32,5 × 16-21; soris uredosporiferis sparsis vel congestis hypophyllis, in maculis pallide luteis insidentibus, parvulis, rotundatis, pallide luteis; uredosporis elliptico-oblongis vel ovoideis, minute echinulatis, 25-30 × 18,7-21, granulosis; soris teleutosporiferis caulogenis, raro in pag. inf. insidentibus, 3-3,7 ×

1-1,9 mm. diam. intense brunneis, suberumpentibus; teleutosporis rufo-brunneis, oblongis ad septum paullo constrictis, superne verrucosis, utrinque rotundatis, papilla apicali subinconspicua donatis, 29-34 × 24-27,5; pedicello hyalino, fragili 37,5-44 μ. longo.

Hab. in foliis caulibusque Micromeriæ Chamissonis, Santa Cruz et Big River, Mendacino County Californiæ.

183. **Puccinia Vossii** Koern. in Rabh. Fg. eur. n. 1294, Syd. Mon. Ured. vol. I, p. 298: cfr. Sacc. Syll. VII, p. 677, n. 2339, p.p. — Soris teleutosporiferis hypophyllis, interdum paucis etiam epiphyllis, numerosis, aggregatis, confluentibus, plerumque magnam superficiem foliorum occupantibus, sæpe ad nervos constipatis, minutis, rotundatis, epidermide lacerata cinctis, pulverulentis, obscure brunneis; teleutosporis ellipsoideis v. ovoideo-ellipsoideis, utrinque rotundatis, apice leniter incrassatis, medio constrictis, levibus, flavo-brunneis, 20-36 × 14-24; pedicello brevi, hyalino, deciduo. 1112

Hab. in foliis caulibusque vivis Stachydis rectæ in Germania, Austria, Hungaria, Helvetia, Rossia.

184. **Puccinia hyptidicola** Syd. Mon. Ured. vol. I, p. 280, t. XVIII, f. 267. — Soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutis, punctiformibus, pulverulentis, atris; uredosporis immixtis globosis v. subglobosis, echinulatis, flavis, 20-25 μ. diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio parum constrictis, subtiliter verruculosis, brunneis, 26-32 × 19-25; pedicello hyalino, tenui, brevi. 1113

Hab. in foliis Hyptidis fasciculatæ, Concepcion Uruguay (G. P. Lorentz).

185. **Puccinia Hyssopi** Schw. N. Amer. Fg. p. 296 (1834), Syd. Mon. Ured. vol. I, p. 281: cfr. Sacc. Syll. VII, p. 688, n. 2374, p. p. — Soris teleutosporiferis hypophyllis, maculis orbicularibus, 2-3 mm. diam, brunneis depressulis insidentibus, rotundatis, ca. 1 mm. diam, sparsis v. in greges minutos usque 3 mm. latos dense aggregatis confluentibusque, compactis, brunneis; teleutosporis ellipsoideis v. oblongis, apice papilla subverruciformi obtusa v. leniter acutiuscula auctis, medio vix v. leniter constrictis, basi rotundatis, levibus, brunneis, 35-50 × 16-24; pedicello hyalino, persistenti, usque 75 μ. longo. 1114

Hab. in foliis vivis Lophanti nepetoidis (Hyssopi nepetoidis), H. scrophulariifolii in Germania (hort. bot. Berl.) et America bor.

186. **Puccinia Leucadis** Syd Mon. Ured. vol. I, p. 281, tab. XVIII, 1115

f. 268. *Uredo Leucadis* Syd. et Sacc. Syll. XVI, p. 361. — Soris uredosporiferis amphigenis, plerumque hypophyllis, numerosis, maculis nullis v. obsoletis insidentibus, sparsis v. aggregatis, sæpe confluentibus, nudis, pulverulentis, ½-1 mm. diam., ferrugineis; uredosporis plerumque perfecte globosis, subtiliter aculeatis, brunneis, 20-28 µ. diam.; teleutosporis paucis immixtis tantum visis, ellipsoideis, utrinque rotundatis, apice non v. vix incrassatis, medio non v. parum constrictis, subhyalinis, levibus, 30-38 × 16-22; pedicello hyalino, gracili, usque 50 µ. longo.

Hab. in foliis vivis Leucadis martinicensis pr. Durban, Natal Africæ austr. (Wood).

187. **Puccinia luandensis** Syd. Mon. Ured. vol. I, p. 287, tab. XIX, 1116
p. 271 — Soris uredosporiferis hypophyllis, sine maculis, sparsis, minutissimis, rotundatis, pulverulentis, ferrugineis; uredosporis globosis vel subglobosis, subtiliter verruculosis, dilute brunneis, 20-30 µ. diam.; soris teleutosporiferis hypophyllis, sine maculis, sparsis, minutissimis, rotundatis, epidermide elevata cinereo-plumbea fere semper tectis; teleutosporis ellipsoideis, utrinque rotundatis, apice vix v. leniter incrassatis, usque 4 µ., medio plerumque leniter constrictis, levibus, brunneis, 40-52 × 24-30; pedicello hyalino, persistenti, sæpe curvato, crasso, usque 55 µ. longo.

Hab. in foliis vivis Plectranthi spec., Luanda prope Port Natal Africæ austr. (Wood).

188. **Puccinia pallida** Massee in Kew Bull. 1901, p. 168. — Maculis 1117
amphigenis, determinatis, pallescentibus; soris hypophyllis, centro macularum insidentibus 6-10-aggregatis, erumpentibus, intense fusco-ferrugineis; teleutosporis anguste lanceolatis, levissimis, apice incrassatis, stramineis, 50 × 15-16; stipite crassiusculo, basi subattenuato hyalino.

Hab. in foliis Orthosiphonis cujusdam, Deakensberg, Natal Africæ merid.

189. **Puccinia Ziziphoræ** Syd. Mon. Ured. vol. I, p. 304, tab. XX, 1118
f. 288. — Æcidiis hypophyllis, sine maculis, solitariis, sparsis v. interdum partim per superficiem foliorum æque dispositis, cupulatis, margine vix lacerato v. integro, intus curvato, flavido; æcidiosporis globosis, subglobosis v. angulatis, minute verruculosis, flavidis, 19-25 µ. diam.; soris uredosporiferis amphigenis, sine maculis, sparsis v. vix aggregatis, rotundatis v. ellipticis, minutis, epidermide rupta cinctis, mox nudis, cinnamomeis; uredosporis plerumque ellipsoideis v. piriformibus, subtiliter echinulatis, pal-

lide flavo-brunneis, 22-32 × 14-24; soris teleutosporiferis conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis apice papilla pallida lata præditis, medio leniter constrictis, verrucosis, 24-35 × 20-27; pedicello hyalino, sporam superante.

Hab. in foliis vivis Ziziphoræ canescentis, clinopodioidis in Syria, Kurdistania, Turkestania, Songaria.

190. **Puccinia Monardellæ** Dudley et Thomp. in Journ. of Mycol 1119
1904, p. 53. — Folia ramulosque juveniles contorquens; æcidiis epiphyllis sparsis, longe tenuiterque cylindraceis, margine irregulariter laceratis; æcidiosporis irregulariter angulosis, globosis vel oblongis, minute denseque verrucosis, granulosis, 23-38,7 × 16-25; soris uredosporiferis hypophyllis, rotundatis, sparsis brunneo-luteis, parvulis; uredosporis globosis vel subangulosis, fere hyalinis, minute sparseque echinulatis, granulosis, 22,5-25 μ. diam.; soris teleutosporiferis hypophyllis, rotundatis, parvis, sparsis, raro in circulo dispositis, nigris, pulverulentis; teleutosporis intense rufo-brunneis, brevi ellipticis, plus minusve ad septum constrictis, utrinque rotundatis, papillatis, 25-31 × 22-25; pedicello brevi hyalino, superne leviter colorato, basi spathulato-incrassato, circ. 5 μ. diam., 50-62 μ. longo.

Hab. in foliis caulibusque Monardellæ et M. undulatæ in California.

191. **Puccinia istriaca** Syd. Mon. Ured. vol. I, p. 301. — Soris teleu- 1120
tosporiferis hypophyllis v. subinde caulicolis, sine maculis, sparsis v. sæpius in greges orbiculares elongatos v. indeterminatos dispositis, minutis, vix confluentibus subpulverulentis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, levibus, dilute castaneo-brunneis, 33-43 × 17-24, episporio tenui; pedicello hyalino, tenui, brevi, caduco.

Hab. in foliis caulibusque vivis Teucrii Polii, ins. Due Sorelle pr. Rovigno, Istria (P. Sydow).

192. **Puccinia heliotropicola** Speg. Myc. argent. ser. II, 1902, p. 64. 1121
— Maculis nullis; acervulis sæpius hypophyllis, confluentibus, subpulverulentis, obscure fulvis; soris erumpentibus fere totum hypophyllum obtegentibus, crassiusculis e compactiusculo pulverulentis; teleutosporis subellipsoideis 30-32 × 18-20 medio leniter constrictis, loculo supero subgloboso apice obtuso et tenuiter tunicato, infero obovato donatis; pedicello hyalino mox fluxili subæquilongo.

Hab. ad folia viva Heliotropii campestris prope Cordoba in Argentina (T. Stuckert).

193. **Puccinia accedens** Syd. Mon. Ured. vol. I, p. 309, tab. XXI, fig. 297. — Soris teleutosporiferis hypophyllis, maculis aridis orbicularibus v. irregularibus insidentibus, sparsis, mediocribus, 1-3 mm. diam., pulvinatis, umbrinis; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice non incrassatis, medio non vel vix constrictis, levibus, flavo-brunneolis, 22-32 × 10-20; pedicello brunneolo, persistenti, usque 50 μ. longo; mesosporis numerosissimis, ellipsoideis v. ovato-ellipsoideis, apice non incrassatis, flavo-brunneolis, eadem magnitudine. 1122

Hab. in foliis vivis Lippiæ aristatæ, Matto Grosso Brasiliæ.

194. **Puccinia conjuncta** Diet et Holw. Bot. Gaz. XXXI, 1901, p. 335, Syd. Mon. Ured. vol. I, p. 308, tab. XXI, fig. 296. — Soris teleutosporiferis epiphyllis, rarius paucis hypophyllis v. caulicolis, sparsis v. in caulibus aggregatis et tunc confluentibus, pulverulentis, obscure brunneis; teleutosporis e cellulis globosis v. subglobosis formatis, medio valde constrictis, apice papilla humili dilutiore auctis, echinulatis, brunneis, 34-45 × 22-28; pedicello hyalino, brevi, deciduo. 1123

Hab. in foliis, petiolis caulibusque vivis Lippiæ Pringlei, Oaxaca Mexico (Holway).

195. **Puccinia peruviana** Syd. Mon. Ured. vol. I, p. 308, tab. XXI, f. 295. — Soris teleutosporiferis hypophyllis, sine maculis, minutis, punctiformibus, sparsis, pulverulentis, atro-brunneis; uredosporis immixtis globosis v. subglobosis, valde echinulatis, flavis, 19-22 μ. diam.; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis nec papillatis, medio semper constrictis, grosse verrucosis, brunneis, 27-38 × 19-26; pedicello hyalino, crasso, persistenti, sporam æquante, basi leniter asperulo. 1124

Hab. in foliis vivis Lippiæ urticoidis pr. Tarapoto Peruviæ (R. Spruce).

196. **Puccinia Premnæ** P. Henn. in Hedw. 1902, p. 62, Syd. Mon. Ured. vol. I, p. 309. — Soris teleutosporiferis amphigenis, plerumque epiphyllis, maculis rotundatis, 2-6 mm. diam., flavidis dein fuscescentibus insidentibus, in macula laxe aggregatis, minutis, punctiformibus, rotundatis, epidermide fissa cinctis, pulverulentis, atris; teleutosporis ellipsoideis vel ovato-ellipsoideis apice rotundatis, non v. vix incrassatis, subinde papilla hyalina minuta auctis, medio non v. parum constrictis, basi rotundatis, verruculosis, brun- 1125

neis, 25–46 × 16–26; pedicello hyalino, apice leniter brunneolo, tenui, usque 35 μ. longo.

Hab. in foliis vivis Premnæ macrophyllæ pr. Sakawa in prov. Tosa Japoniæ (Joshinaga).

197. **Puccina Phaceliæ** Syd. et Holw. in Syd. Mon. Ured. vol. I, p. 314, tab. XXI, fig. 303. — Soris teleutosporiferis amphigenis, maculis flavescentibus sæpe insidentibus, in greges rotundatos 2-4 mm. diam. plerumque dense confertis et sæpe omnino confluentibus, compactis, atris; teleutosporis clavatis v. subclavatis, apice rotundatis v. subtruncatis, leniter incrassatis, usque 6 μ., medio vix leniter constrictis, basi attenuatis, levibus, intus granulosis, brunneis, apice obscurioribus, 32–54 × 11-24; pedicello brunneolo, brevi, persistenti, usque 15 μ. longo; mesosporis subinde immixtis; paraphysibus brunneis sæpe numerosis. 1125

Hab. in foliis vivis Phaceliæ circinatæ in Monte Tacoma, Washington Americæ bor. (Holway).

198. **Puccinia Richardsoni** Syd. Mon. Ured. vol. I, p. 317, t. XXII, f. 307. — Soris teleutosporiferis hypophyllis, minutis, ca. $^1/_2$ mm. diam., rotundatis, sparsis v. paucis seriatim dispositis, nudis, compactis, atro-brunneis; teleutosporis clavatis v. cylindraceo-clavatis, apice rotundatis v. leniter attenuatis, valde incrassatis, usque 16 μ., medio leniter constrictis, deorsum attenuatis, levibus, brunneis, 40-75 × 11-19; pedicello hyalino, apice brunneolo, persistenti, usque 55 μ. longo. 1127

Hab. in foliis vivis Phlogis Richardsonii, Helena, Montana Americæ bor. (Kelsey).

199. **Puccinia enecta** Speg. Mycet. argent. ser. II, 1902, p. 62. — Maculis nullis; acervulis plus minus velatis, atro-ferrugineis, 0,3-0,6 mm. diam., foliicolis, amphigenis; soris minutis subsparsis subpulverulentis; teleutosporis subcylindraceis apice sæpius mucronato-umbonatis semperque crassissime tunicatis, intense ferrugineo-fulvis levibus 50–60 × 20–25, ad medium leniter constrictis, pedicello chlorino sat crasso deorsum sensim leniterque attenuato, 20–30 × 5–7, fultis. 1128

Hab. ad folia viva Evolvuli cujusdam prope Cordoba, in Argentina (T. Stuckert).

200. **Puccinia Batatæ** Syd. Mon. Ured. vol. I, p. 323, tab. XXII, fig. 311. — Æcidiis hypophyllis, maculis irregularibus brunneis v. atro-brunneis insidentibus, solitariis v. in greges minutos sine ordine dispositis, cupulatis, albis, margine elevato subintegro; æci- 1129

diosporis globosis, subglobosis v. raro late ovatis, punctatis, flavescentibus, 24–33 μ. diam.; soris teleutosporiferis epiphyllis, secus circulos supra æcidia efformatos dispositis v. rarius hypophyllis cum æcidiis vetustis immixtis, planiusculis, rotundatis v. irregularibus, epidermide rupta cinctis, pulverulentis, atro-fuscis; teleutosporis ellipsoideo-oblongis, utrinque rotundatis, apice non v. leniter incrassatis, medio vix constrictis, atro-brunneis verruculosis 54–75 × 30–40; pedicello crasso, hyalino, apice brunneolo sæpe flexuoso, usque 140 μ. longo, circiter 10 μ. crasso.

Hab. in foliis vivis Ipomœæ (Batatæ) paniculatæ pr. Durban, Natal Africæ austr. (Wood).

201. **Puccinia Marsdeniæ** Diet. et Holw. in Bot. Gaz. XXXI, p 330, 1130
1901 et Syd. Mon. Ured. vol. I, p. 331, tab. XXIII, fig. 321. — Soris uredosporiferis amphigenis, maculis flavidis vel brunneolis insidentibus, plerumque sparsis, minutis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. late ellipsoideis, remote echinulatis, flavo-brunneis, 28–33 × 25–30, poris germinationis numerosis præditis; soris teleutosporiferis epiphyllis, conformibus, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. lenissime constrictis, dense verrucosis, demum atro-brunneis, opacis, 33–45 × 27–32, episporio 5–6 μ. crasso; pedicello hyalino, usque 75 μ. longo, crasso, flexuoso, sæpe oblique inserto.

Hab. in foliis vivis Marsdeniæ mexicanæ, Cuernavaca in Mexico (Holway).

202. **Puccinia Tassadiæ** Syd. in Ann. Mycol. 1903, vol. I, p. 328. — 1131
Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus brunneolis sæpe indeterminatis insidentibus, minutis, in greges rotundatos v. subrotundatos ca. 2–5 mm. diam., dense gregariis, sed non v. vix confluentibus, subcompactis, brunneis; teleutosporis ovatis v. ovato-ellipsoideis, apice rotundatis, vix vel parum incrassatis, usque 2 μ. medio non constrictis, basi rotundatis, levibus, flavidis v. flavo-brunneolis, 22–28 × 14–22, episporio ca. 1 ½ μ. crasso; pedicello hyalino v. subhyalino, subtenui, persistenti, usque 60 μ. longo, interdum oblique inserto; mesosporis paucis immixtis.

Hab. in foliis vivis Tassadiæ comosæ, in Brasilia (Glaziou).

203. **Puccinia sphærospora** Syd. et P. Henn. in Ann. Mycol. 1903, 1132
vol. I, p. 327. — Soris teleutosporiferis hypophyllis, maculis rotundatis vel indeterminatis ca. 2–5 mm. diam. flavidis insidentibus,

sparsis vel sæpius paucis vel compluribus circinatim dispositis, vix confluentibus, 0,5-1 mm. diam., compactis, atris ovato-brunneis; teleutosporis globosis, subglobosis v. ovatis, utrinque rotundatis, apice plerumque leniter incrassatis, usque 5 μ., medio non constrictis, levibus, flavo-brunneolis, 19-27 × 16-26, episporio ca. 3 μ. cr.; pedicello sæpissime lateraliter inserto, persistente, flavido, usque 80 μ. longo; mesosporis numerosis, globosis vel subglobosis, apice magis incrassatis.

Hab. in foliis vivis Metastelmatis Schlechtendalii, in insula St. Croix Americæ bor. (A. E. Fricksecker).

204. **Puccinia Rhyssostelmatis** Speg. Myc. argent. ser. II, 1902, p. 64. 1133
— Maculis nullis v. diffusis, indeterminatis, pallescentibus; acervulis sæpius hypophyllis ac totum folium obtegentibus, 0,3-0,7 mm. diam., innato-subsuperficialibus, duriusculis, non rarius confluentibus; soris amphigenis, hemisphæricis umbrinis, compactis, nudis; teleutosporis obovatis, pallide fulvis, levibus, medio non v. vix constrictis, 25-28 × 18-20, loculis subæquilongis non vel 1-guttulatis, pedicello subhyalino, flexili, 50-100 × 5-7 donatis.

Hab. ad folia caulesque Rhyssostelmatis nigricantis, prope Cordoba in Argentina (F. Stuckert).

205. **Puccinia æquatoriensis** Syd. in Ann. Mycol. 1903, vol. I, n. 325. 1134
— Soris teleutosporiferis hypophyllis, maculis indeterminatis insidentibus, plus minusve sparsis vel hinc inde aggregatis, minutis, punctiformibus, compactis, griseo-brunneis; teleutosporis ovato-oblongis vel oblongis, variabilibus, apice plerumque rotundatis non v. parum incrassatis, medio plus minusve constrictis, basi rotundatis, rarius leniter attenuatis, levibus, flavidis, 16-30 × 11-17; pedicello hyalino-flavidulo, persistenti, usque 60 μ. longo, 10 μ. cr.; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Marsdeniæ spec. pr. Palmira in Æquatoria (A. Sodiro).

206. **Puccinia Cynoctoni** Speg. Myc. argent. ser. II. 1902, p. 62. — 1135
Maculis subnullis; acervulis hypophyllis plus minusve gregariis innato-subsuperficialibus, 0,3-0,7 mm. diam., pallide sordideque ex incarnato testaceis compactis duris; teleutosporis pallidissimis subclavulatis obtusis levibus ubique tenuiter tunicatis, medio non v. vix constrictis, 30-35 × 15-18, loculis subæquilongis, pedicello hyalino 60-70 × 5-7 persistente suffultis.

Hab. ad folia viva Cynoctoni bulligeri secus Carreuleofù in Argentina.

207. **Puccinia Engleriana** P. Henn. Engl. Bot. Jahrb. 1903, p. 40. — 1136
Maculis flavidulis vel fuscidulis, rotundatis vel explanatis; uredosporis hypophyllis sparsis, minutis, epidermide pallide tectis, dein pulverulentis, flavo-brunneis; uredosporis subglobosis, ovoideis v. ellipsoideis 25-35 × 20-28, episporio flavo-fuscidulo, asperato, aculeis hyalinis vel flavidulis ca. 2 μ. longis; teleutosporis amphigenis, plerumque epiphyllis sparsis vel aggregatis, epidermide pallide velatis, atro-fuscis, pulverulentis, 0,2-1 mm. diam.; teleutosporis ellipsoideis, interdum oblonge ovoideis, apice rotundatis, haud incrassatis, medio 1-septatis, vix constrictis, 30-48 × 22-28, episporio amœne cinnamomeo, dense aculeato asperato, aculeis subconicis, hyalinis vel flavidulis; pedicello hyalino 30-50 × 5-6, ad basim vesiculoso inflato, interdum subappendiculato, sicco 5-7 μ., humido usque ad 15 μ. incrassato.

Hab. in foliis Carvalhoæ macrophyllæ, Ost-Usambara Africæ orient. (Engler).

208. **Puccinia Zimmermanniana** P. Henn. Engl. Bot. Jahrb. 1903, 1137
p. 40. — Maculis rotundatis, fuscidulis; teleutosporis hypophyllis dense gregariis versiformibus, subgyrosis, pallide brunneis, epidermide fissa pallida velatis; teleutosporis ellipsoideis, ovoideis v. clavatis, apice plus minus paullo incrassatis, medio 1-septatis, constrictis, 20-40 × 13-22, episporio fusco brunneo, levi; pedicello subhyalino, usque ad 20 × 3-4.

Hab. in foliis Jasmini mauritiani, Usambara Africæ orient. (Zimmermann).

209. **Puccinia abyssinica** (P. Henn.) Syd. Mon. Ured. vol. I, p. 345, 1138
tab. XXIV, fig. 329, *Pucc. exhauriens* Thuem. var. *abyssinica* P. Henn. in Hedw. 1895, pag. 329. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus, pallidis, brunneo-marginatis insidentibus, minutis, compactis, in greges usque $^1/_2$ cm. diam. dense confertis v. subconfluentibus, compactis, pulvinatis, atris; teleutosporis oblongis v. clavatis, apice rotundatis vel vix acutiusculis, non v. vix incrassatis, medio vix vel leniter constrictis, deorsum plerumque attenuatis, levibus, flavo-fuscis, 30-54 × 11-19; pedicello subhyalino 15-40 μ. longo.

Hab. in foliis vivis Jasmini abyssinici, Ambuscha Abyssiniæ (Schimper).

210. **Puccinia aphanicondra** Lindr. in Acta pro Fauna et Fl. fenn. 1139
XXII, n. 1, pag. 86 (1902), Syd. Mon. Ured. vol. I, fasc. III, pag. 394. — Soris teleutosporiferis, amphigenis, sparsis, minutis,

punctiformibus, mox nudis, pulverulentis, atro-brunneis; uredosporis immixtis globosis, subglobosis vel ellipsoideis, echinulatis, apice incrassatis (usque 8 μ.), flavo-brunneolis, 25-36 × 22-28, poris germinationis ternis instructis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, non v. vix incrassatis, ad medium non v. parum constrictis, basi plerumque rotundatis, rarius leniter attenuatis, levibus v. sublevibus, brunneis, 32-54 × 23-27; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Ligustici alati, Sipikor in Armenia turcica (P. Sintenis).

211. **Puccinia arctica** Lagh. in Syd. Mon. Ured. vol. I, p. 349. — 1140
Æcidiis hypophyllis, maculis orbicularibus pallidis insidentibus, solitariis v. in greges rotundatos 2-4 mm. latos laxe dispositis, minutis, flavidis, cupulatis, margine lacerato, recurvato; æcidiosporis angulato-globosis v. ovoideis, punctatis, hyalino-flavescentibus, 14-20 μ. diam.; soris teleutosporiferis amphigenis, sine maculis, sparsis, solitariis, minutis, ca. $^1/_2$ mm. diam, punctiformibus, pulverulentis, atro-brunneis; uredosporis immixtis subglobosis, oblongis v. ovoideis, echinulatis, flavo-brunneis, 22-27 × 19-22; teleutosporis oblongis, apice papilla subhyalina obtusa usque 4 μ. alta instructis, medio non v. vix constrictis, basi rotundatis raro attenuatis, levibus, dilute brunneis, 35-43 × 16-24; pedicello hyalino, teleutosporam æquante, deciduo.

Hab. in foliis vivis Primulæ sibiricæ in Norvegia arctica et Lapponia rossica.

212. **Puccinia oregonensis** Earle in New York Bot. Gard. 1902, 1141
pag. 349. — Caulicola vel foliicola; pycnidiis minutis, brunneolis, fere semper epiphyllis; pseudoperidiis dense congestis sæpe amphigenis brevibus et latis 750 × 250, interdum laceratis e cellulis prismaticis 30 × 20-25 compositis; æcidiosporis subovalibus 20 × 16 paullulo reticulatis, membrana tenui, 1,5 μ. cinctis; uredosporis non visis; soris teleutosporiferis hypophyllis, in maculis luteolis indefinitis, sparsis v. confluentibus, ovalibus 1 × 0,75 mm., subcutaneis, fere nigris; teleutosporis brunneo-nigris, ovalibus, apice rotundatis, leviter constrictis, episporio tenui, opaco, rugoso-tuberculato donatis; stipite fragili, hyalino.

Hab. in caulibus foliisque Saniculæ bipinnatæ, Corvallis, Oregon. — A *Pucc. Saniculæ* Grev. vere distincta; *P. Pimpinellæ* (Strauss) Link affinis.

213. **Puccinia microsphincta** Lindr. in Acta Soc. pro Fauna et Flora 1142

fennica XXII, n. 1, p. 74 (1902), Syd. Mon. Ured. vol. I, p. 366. — Soris teleutosporiferis amphigenis v. petiolicolis, sparsis, rotundatis v. oblongis, mediocribus 1-2 mm. longis, sæpe nervos sequentibus, mox nudis, compactiusculis atris; teleutosporis oblongo-ellipsoideis v. oblongo-clavulatis, apice rotundatis, vix incrassatis, medio vix v. leniter constrictis, basi plerumque leniter attenuatis, indistincte undulato-tuberculatis, brunneis, 35-54 = 20-27, episporio usque 4 μ. cr.; pedicello hyalino, crassiusculo, subpersistenti, sporam æquante v. ea breviore.

Hab. in foliis petiolisque vivis Cari atrosanguinei in Turkestania (Tranzschel).

214. **Puccinia dolomitica** Kabát et Bubák, in Œsterr., bot. Z. 1904, n. 4-5. 1143
— Teleutosoris hypophyllis in greges plus minusve latos aggregatis, ad nervos et petiolos hypertrophias et torsiones efficientibus, semiglobosis, diu epidermide tectis denique rimose erumpentibus, cinnamomeis, subinde confluentibus; teleutosporis ovato-ellipsoideis v. oblongis, sæpe irregularibus, 26-44 = 15-26 rarius usque 30-40 μ. latis, utrinque rotundatis v. leviter attenuatis, medio non v. vix constrictis, poris germinationis binis, papilla hyalina vix 1,5-2 μ. alta tectis, tunica tenui 1-2 μ. crassa, pallide brunnea, levi v. indistincte punctata; pedicello hyalino, tenui, deciduo, usque 40 μ. longo.

Hab. in foliis Cerefolii silvestris, Campitello Val di Fassa Italiæ bor. — Teleutosp. tricellulares non raro occurrunt.

215. **Puccinia aromatica** Bubák apud Lindroth in Acta Soc. pro 1144
Fauna et Flora fennica XXII, n. 1, p. 22 (1902), Syd. Mon. Ured. vol. I, p. 369. — Æcidiis hypophyllis v. petiolicolis, sæpe nervos sequentibus, cupulato-pustuliformibus, verruculosis, hyalino-flavescentibus, 19-24 = 15-22; soris uredosporiferis hypophyllis, sparsis, minutis v. majusculis, usque 2 mm. diam., cinnamomeis, pulverulentis; uredosporis subglobosis, ellipsoideis v. ovatis, echinulatis, flavo-brunneolis, 21-28 = 17-23, poris germinationis ternis instructis; soris teleutosporiferis hypophyllis, sparsis, in folio minutis rotundatis, in petiolis oblongis, atro-brunneis; teleutosporis ellipsoideis vel ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix constrictis, reticulatis, brunneis, 26-34 = 19-24; pedicello hyalino, tenui.

Hab. in foliis petiolisque vivis Chærophylli aromatici in Germania, Austria, Hungaria, Rossia.

216. **Puccinia retifera** Lindr. in Acta Soc. pro Fauna et Flora fen- 1145

nica XXII, n. 1, p. 20 (1902), Syd. Mon. Ured. vol. I, p. 368, tab. XXIV, fig. 334. — Æcidiis hypophyllis, plerumque nervos foliorum sequentibus vel petiolicolis, pustuliformibus, cæomatiformibus, flavidis, pariete vix evoluto; æcidiosporis angulato-globosis v. ovatis, subtiliter verruculosis, flavescentibus, 19-30 × 17-22; soris uredosporiferis hypophyllis, sparsis, minutis, rotundatis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis vel ovatis, echinulatis, flavo-brunneolis, 18-27 × 17-21, poris germinationis ternis præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovato-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix v. leniter constrictis, reticulatis, brunneis, 26-36 × 19-24; pedicello hyalino, tenui, sporam æquante, deciduo.

Hab. in foliis petiolisque vivis Chærophylli bulbosi in Germania, Hungaria et Rossia.

217. **Puccinia Myrrhis** Schw. Syn. N. Am. Fg. 1831, p 296, Lindr. in Acta Soc. pro Fauna et Fl. fennica XXII, n. 1, p. 28 (1902), Syd. Mon. Ured. vol. I, p. 371. — Soris uredosporiferis amphigenis, minutis, rotundatis, punctiformibus; uredosporis globosis, subglobosis v. ellipsoideis, præcipue ad apicem dense subtiliterque echinulatis, basim versus levibus, flavis, 20-25 × 18-23, poris germinationis duobus præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis v. ovatis, apice rotundatis v. attenuatis, reticulatis, brunneis, 26-32 × 16-21; pedicello hyalino, deciduo. 1146

Hab. in foliis vivis Chærophylli procumbentis, prope Lexington, Kentucky et Washington Americæ bor.

218. **Puccinia Apii** Desm. Cat. des plantes omis. 1823, p. 25, Syd. Mon. Ured. vol. I, p. 359; cfr. Sacc. Syll. VII, p. 634, n. 2211, p. p. — Æcidiis hypophyllis v. petiolicolis, maculis orbicularibus v. irregularibus minutis flavidis insidentibus, in greges rotundatos v. in caule elongatos dispositis, brevissime cylindraceis, margine albo, lacerato; æcidiosporis globosis v. angulato-globosis, subtiliter verruculosis, aurantiacis, 17-24 μ. diam.; soris uredosporiferis hypophyllis, sparsis, hinc inde confluentibus, pulverulentis, cinnamomeo-brunneis; uredosporis subglobosis, ovatis v. ellipsoideis, echinulatis, apice leniter incrassatis, 3-5 μ, flavo-brunneolis, 24-35 × 20-26, poris germinationis ternis instructis; soris teleutosporiferis hypophyllis subinde etiam epiphyllis v. petiolicolis, sparsis v. hinc inde confluentibus rotundatis v. irregularibus, pulverulentis, atro- 1147

brunneis; teleutosporis oblongis v. ovato-oblongis, apice rotundatis, non incrassatis, medio non v. parum constrictis, basi rotundatis v. leniter attenuatis, levibus, brunneis, 30-50 × 15-23; pedicello hyalino, tenui, deciduo.

Hab. in foliis petiolisque vivis Apii graveolentis, prostrati, Selini japonici in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Hollandia, Britannia, Dania, Suecia, Fennia, India or., Japonia et Tasmania.

219. **Puccinia Petroselini** (D. C.) Lindr. in Acta Soc. pro Fauna et 1148
Fl. fenn. XXII, n. 1, pag. 84 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 399, *Uredo Petroselini* D. C. — Soris uredosporiferis plerumque hypophyllis, sparsis vel hinc inde paucis aggregatis, minutissimis v. confluendo majoribus, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, omnino echinulatis v. ad medium subinde sublevibus, apice incrassatis (5-6 μ.), flavidis v. flavo-brunneolis, 22-29 × 21-25, poris germinationis ternis rarius binis instructis; soris teleutosporiferis conformibus, obscure brunneis, in petiolis caulibusque sæpe majoribus elongatis et confluentibus; teleutosporis ellipsoideis v. ovato-ellipsoideis, apice rotundatis, non incrassatis, medio parum constrictis, basi rotundatis v. leniter attenuatis, levibus v. sublevibus, brunneis, 28-48 × 18-25; pedicello hyalino, tenui, brevi, deciduo.

Hab. in foliis, petiolis caulibusque Æthusæ Cynapii, cynapioidis, Anethi graveolentis, Petroselini sativi in Germania, Austria, Hungaria, Helvetia, Italia, Gallia, Britannia, Dania, Suecia, Norvegia.

220. **Puccinia phymatospora** Lindr. in Acta Soc. pro Fauna et Flora 1149
fennica XXII, n. 1, p. 68 (1902), D. Sacc. Myc. ital. 247, Syd. Mon. Ured. vol. I, fasc. III, pag. 415. — Soris teleutosporiferis hypophyllis, maculis flavidis insidentibus, sparsis, minutis, rotundatis, subpulverulentis, atris; uredosporis immixtis, ellipsoideis v. ovato-ellipsoideis, echinulatis, apice valde incrassatis, usque 9 μ., flavescentibus, 28-34 × 20-25, poris germinationis ternis instructis; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non vel vix incrassatis, medio non v. vix constrictis, subtilissime punctatis, ad marginem undulatis, brunneis, 32-40 × 24-32; pedicello hyalino, deciduo.

Hab. in foliis vivis Seseleos spec., in monte S. Angelo Gargano Italiæ austr. (A. Fiori).

221. **Puccinia Sileris** Voss in Verhandl. Zool. bot. Gesellsch, Wien 1150

XXVI, p. 120 (1876), Syd. Mon. Ured. vol. I, fasc. III, p. 415. — Æcidiis hypophyllis, maculis flavo-brunneolis insidentibus, cupulato-pustuliformibus, pariete parce evoluto; æcidiosporis globosis v. subglobosis, subtiliter verruculosis, hyalino-flavescentibus, 18–25 μ. diam.; soris uredosporiferis hypophyllis, maculis minutissimis flavis v. flavo-brunneolis insidentibus, sparsis, minutis, rotundatis, pulverulentis, cinnamomeis; uredosporis globosis v. subglobosis, dense aculeatis, flavis v. dilute flavo-brunneolis, 24-27 × 22-26, episporio ca. 5 μ. crasso, poris germinationis ternis, ut videtur, præditis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix v. leniter constrictis, reticulatis, 30-40 × 22-30; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis Sileris trilobi in Germania, Austria, Hungaria, Rossia, Asia minori.

222. **Puccinia Bonanniæ** Syd. Mon. Ured. vol. I, pag. 363. — Soris 1151
teleutosporiferis amphigenis, sine maculis, sparsis, minutis, rotundatis, $^1/_2$-1 mm. diam., epidermide plumbea nitida diu vel fere semper tectis, pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, sæpe angulatis, plerumque utrinque rotundatis, apice non v. raro lenissime incrassatis, medio non v. vix constrictis, levibus, brunneis, 35-50 × 24-30, episporio crassiusculo, usque 3 μ.; pedicello hyalino, brevi.

Hab. in foliis vivis Bonanniæ resiniferæ, in mont. Nebrodibus Siciliæ austr. (G. Strobl).

223. **Puccinia corvarensis** Bubák. Œsterr. bot. Zeitschr. 1900, n. 8. — 1152
Teleutosoris hypophyllis, plerumque nervicolis et interdum petiolicolis, magnitudine varia, subscutellatis poro rotundo dehiscentibus, cinnamomeo-brunneis, pulvereis, matricem deformantibus; teleutosporis ovoideis ellipsoideis v. oblongis, medio constrictis, utrinque tenuatis v. rotundatis, 22-42 × 15-24, plerumque 32 × 20-22, brunneis, levibus; pedicello sporam dimidiam æquante; poro germinativo amplo in quoque loculo unico, verrucula 2-4 μ. alta, initio tectis.

Hab. in foliis Pimpinellæ magnæ, in valle Corvara agri Tridentini.

224. **Puccinia lejoderma** Lindr. Acta Soc. pro Fauna et Flora fen- 1153
nica XXII, n. 1, p. 110 (1902) et Syd. Mon. Ured. vol. I, p. 354. — Æcidiis hypophyllis, maculis brunneolis insidentibus, solitariis v. in greges minutos 2-3 mm. diam. dispositis, cupulatis, albis, mar-

gine leniter recurvato, minutissime denticulato; æcidiosporis angulato-globosis, subtilissime verruculosis, subhyalinis, 15-22 μ. diam.; soris teleutosporiferis hypophyllis, maculis minutis indeterminatis brunneolis insidentibus, minutis, vix ½ mm. diam, epidermide tectis, dein nudis et in acervulos 1-3 mm. latos obscure brunneos confluentibus, pulverulentis; teleutosporis ovatis vel ellipsoideis, apice rotundatis, medio non vel vix constrictis, basi plerumque rotundatis, levibus, brunneis, 25-33 × 13-22; pedicello hyalino, brevi tenui, deciduo.

Hab. in foliis Ægopodii alpestris, in Turkestania, Sibiria.

225. **Puccinia Ægopodii** Syd. Mon. Ured. vol. I, p. 6, tab. I, f. 5 (1902). — Soris teleutosporiferis amphigenis, sine maculis, sparsis, non confluentibus, 1-1,5 mm. diam., orbicularibus v. suborbicularibus, epidermide lacerata cinctis v. semitectis, pulverulentis, atris; uredosporis immixtis, globosis v. subglobosis, echinulatis, flavo-brunneis, 23-27 μ. diam.; teleutosporis late ellipsoideis, valde regularibus, utrinque rotundatis, apice non incrassatis, medio non constrictis, subtiliter verruculosis, castaneo-brunneis, 37-46 × 27-35, episporio crasso, usque 4 μ.; pedicello brevissimo hyalino. 1151

Hab. in foliis vivis Ægopodi berardioidis, prope Kerman Persiæ australis (Bornmüller).

226. **Puccinia Laserpitii** Lindr. in Acta Soc. pro Fauna et Fl. fennica XXII, n. 1, pag. 35 (1902) Syd. Mon. Ured. vol. I, f. III, p. 391. — Æcidiis hypophyllis, petiolicolis v. caulicolis, pustulato-cupuliformibus, margine albido, irregulariter lacerato; æcidiosporis globosis, subglobosis v. ellipsoideis, verruculosis, subhyalinis, 25-36 × 20-26; soris uredosporiferis hypophyllis, sparsis, minutissimis, punctiformibus, pulverulentis, cinnamomeis; uredosporis subglobosis v. ellipsoideis, echinulatis, brunneis, 26-33 × 22-26, poris germinationis binis, rarius ternis instructis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio vix constrictis, reticulatis, brunneis, 28-36 × 19-25; pedicello hyalino, deciduo. 1155

Hab. in foliis caulibusque vivis Laserpitii Archangelicæ in Moravia (Bubak).

227. **Puccinia Heraclei** Grev. in Scott. Crypt. Fl. I, tab. 42 (1823), Syd. Mon. Ured. vol. I, fasc. III, p. 387. — Æcidiis hypophyllis v. sæpissime petiolicolis, præcipue nervos foliorum sequentibus et maculis leniter incrassatulis flavis v. flavobrunneolis insidentibus, 1156

in greges irregulares v. elongatos dense dispositis, cupulato-pustuliformibus, pariete parce evoluto; æcidiosporis globoso-angulatis, subtiliter verruculosis, flavescentibus, 21-32 × 18-28; soris uredosporiferis amphigenis, sparsis, minutis, castaneo-brunneis; uredosporis globosis, subglobosis v. ellipsoideis, dense echinulatis, dilute brunneis, 25-32 × 19-27, poris germinationis ternis vel quaternis instructis; soris teleutosporiferis amphigenis, minutis, sparsis vel ad nervos subinde plus minusve confluentibus, pulverulentis, atro-brunneis v. atris; teleutosporiferis ellipsoideis, utrinque rotundatis, medio vix v. parum constrictis, reticulatis, brunneis, 26-37 × 18-27; pedicello hyalino, brevi, deciduo.

Hab. in foliis petiolisque Heraclei sibirici, Sphondylii in Germania, Italia, Gallia, Hollandia, Belgio, Britannia, Suecia, Norvegia, Fennia.

228. **Puccinia Bakeriana** Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1157
Soris uredosporiferis hypophyllis, rotundatis, subimmersis, pulverulentis, cinnamomeo-brunneis; uredosporis latis, globosis vel obovoideis, 39-45 × 34-42; episporio aurantiaco-luteo 4-6 μ. crasso, superne usque 12 μ. dense tuberculato; poris 3 latis, æquatorialibus; soris teleutosporiferis, sparsis, hypophyllis, subimmersis, rotundatis, pulverulentis, intense brunneis; teleutosporis ellipsoideis, interdum obovato-oblongis, irregularibus, 40-55 × 24-32, utrinque rotundatis, ad septum non vel vix constrictis; episporio 2,5-3 μ. crasso, dense tuberculato, intense brunneo; pedicello brevi, hyalino, subdeciduo.

Hab. in foliis Heraclei lanati, Pillar Point, San Mateo County Californiæ (C. F. Baker).

229. **Puccinia athamanthina** Syd. Mon. Ured. vol. I, p. 362. — Æci- 1158
diis laxe et irregulariter aggregatis, cupulato-pustuliformibus, pariete parce verruculosis, 19-30 × 13-21; soris uredosporiferis sparsis, minutis, punctiformibus, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ellipsoideis, subtiliter denseque echinulatis, flavo-brunneolis, 23-30 × 19-25, poris germinationis ternis instructis; soris teleutosporiferis sparsis, minutis, punctiformibus, rotundatis, in caule oblongis v. elongatis et sæpe subconfluentibus, pulverulentis, atris vel atro-brunneis; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non vel parum constrictis, reticulatis, obscure brunneis, 30-36 × 24-30; pedicello hyalino, tenui.

Hab. in foliis caulibusque vivis Athamanthæ cretensis,

Matthioli, vestinæ, verticillatæ (?) in Germania, Austria, Italia et Græcia.

230. **Puccinia angelicicola** P. Henn. in Hedw. 1903, pag. (107). — Maculis flavidulis; uredosoris plerumque epiphyllis, minutis, subochraceis; uredosporis subglobosis, ovoideis v. ellipsoideis, hyalino-brunneis, 18-24 × 17-20, episporio aculeato-verrucoso; teleutosoris amphigenis sparsis vel gregariis, atris, epidermide fissa, pallida, basi velatis; teleutosporis ellipsoideis v. ovoideis, apice rotundatis, interdum applanatis, haud incrassatis, flavo-brunneis, medio 1-septatis, leniter constrictis; episporio castaneo, reticulato, 22-34 × 18-23; pedicello ca. 10 × 3,5-4 hyalino. 1159

Hab. in foliis Angelicæ Miquelianæ, Mt. Takao, Musashi Japoniæ (N. Nambu).

231. **Puccinia Angelicæ** (Schum.) Fuck. Symb. Myc. p. 52 (1869). — Sacc. Syll. VII, p. 703 (descriptio incompleta), Syd. Mon. Ured. vol. I, p. 357. — Soris uredosporiferis primariis præcipue secus nervos evolutis v. petiolicolis, in foliis in greges minutos dispositis, primitus intense obscureque flavis, dein obscurioribus, tandem atro-brunneis; secundariis hypophyllis, subinde etiam epiphyllis, maculis minutissimis dilutioribus sæpe insidentibus, sparsis, minutis, pulverulentis, flavo-cinnamomeis; uredosporis ovatis, ellipsoideis v. ovato-oblongis, echinulatis, apice valde incrassatis, 5-10 µ, basi minus incrassatis, ca. 4 µ., dilute brunneis, 25-40 × 22-28, poris germinationis ternis instructis; soris teleutosporiferis plerumque amphigenis, sparsis, minutis, rotundatis, pulverulentis, atro-brunneis v. atris; teleutosporis ellipsoideo-oblongis v. oblongis, apice rotundatis, non v. vix incrassatis, medio non v. parum constrictis, basi rotundatis v. leniter attenuatis, levibus, brunneis, 30-50 × 16-24; pedicello hyalino, brevi, deciduo. 1160

Hab in foliis petiolisque vivis Angelicæ decurrentis, silvestris, Archangelicæ littoralis, officinalis in Germania, Hollandia, Dania, Britannia, Suecia, Norvegia, Fennia, Rossia, Turkestania.

232. **Puccinia Ferrarisii** Lindr. in Acta pro Fauna et Fl. fenn. XXII, n. 1, p. 94 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 405. — Soris uredosporiferis plerumque amphigenis, minutissimis, rotundatis, brunneis; uredosporis ovato-ellipsoideis v. subglobosis, echinulatis, apice incrassatis (usque 6,5 µ.), 25-34 × 21-27, episporio crassiusculo, poris germinationis plerumque ternis instructis; soris teleutosporiferis conformibus, atro-brunneis; teleutosporis ovato- 1161

ellipsoïdeis vel ovato-clavulatis, apice rotundatis, vix incrassatis, medio parum constrictis, basi sæpe leniter attenuatis, levibus, brunneis, 27-38 × 19-24; pedicello hyalino, tenui, deciduo.

Hab in foliis vivis Peucedani Oreoselini (?), Crescentino Ital. bor. (T Ferraris).

233. **Puccinia tokyensis** Syd. Mon. Ured. I, 1902, p. 377, *Æcidium Cryptotæniæ* Diet. — Syll. XVI, p. 335, *Uredo Cryptotæniæ* Syd. — Syll. XVI, p. 355. — Æcidiosporis et uredosporis at ll. cc. soris teleutosporiferis epidermide fissa cinctis v. semitectis, atro-brunneis; teleutosporis ovoideis v. ellipsoideis, apice rotundatis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis, levibus, brunneis, 22-35 × 16-22; episporio tenuissimo; pedicello hyalino tenuissimo, deciduo. 1162

Hab. in foliis petiolisque vivis Cryptotæniæ japonicæ, Tokyo Japoniæ.

234. **Puccinia Araliæ-cordatæ** P. Henn. Fungi Pilze Japan. II, p. 151 (Hedw. 1904). — Maculis fuscis vel centro pallidis, rotundatis vel explanatis; soris hypophyllis sparsis vel aggregatis, atris pulverulentis; uredosporis subglobosis, ellipsoideis v. ovoideis, 25-40 × 20-28 μ., episporio brunneo, aculeato-echinato; teleutosporis oblonge ellipsoideis vel clavatis, apice hemisphærico-papillatis, 35-45 × 22-30 μ., medio 1-septatis, constrictis, brunneis, levibus; pedicello 30-40 × 4-5 μ. hyalino-fuscidulo. 1163

Hab. in foliis Araliæ cordatæ, Yamato, Mt. Yoshina Japoniæ (T. Yoshinaha). — A *P. Araliæ* Ell. et Ev. tam uredosporis quam teleutosporis papillatis omnino diversa. Non raro occurrunt teleutospore ob compressionem cuboideæ et subinde in eodem pedicello binæ.

235 **Puccinia imperspicua** Syd. Mon. Ured. vol. I, p. 361. — Soris teleutosporiferis amphigenis, sparsis, minutissimis, vix perspicuis, pulverulentis, atris; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis, incrassatis, usque 8 μ., medio vix v. leniter constrictis, basi plerumque rotundatis, levibus, castaneo-brunneis, 38-52 × 25-35, episporio crasso ca. 4 μ.; pedicello hyalino, crassiusculo, usque 70 μ. longo, sed deciduo. 1164

Hab. in foliis vivis Arracachæ multifidæ, Rio Hondo in Mexico (Pringle).

236. **Puccinia Phellopteri** Syd. Mon. Ured. vol. I, fasc. III, p. 406. — Soris uredosporiferis amphigenis, sparsis, minutis, pulverulentis, cinnamomeis; uredosporis subglobosis vel ellipsoideis, valide acu- 1165

leatis, episporio crasso 5-7, apice usque 11 μ. incrassatis, flavis 27-38 × 26-30, soris germinationis tenuis instructis; soris teleutosporiferis, conformibus, obscurioribus; teleutosporis ellipsoideis, oblongis v. oblongo-clavulatis, apice rotundatis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis vel attenuatis, levibus, brunneis, 32-46 × 19-27; pedicello hyalino, tenui, deciduo.

Hab. in foliis vivis Phellopteri littoralis, Port Chusan Koreæ (C. Wilford).

237. **Puccinia sphalerocondra** Lindr. in Acta pro Fauna et Fl. fenn. 1166
XXII, n. 1, pag. 63, (1902). Syd. Mon. Ured. vol. I, fasc. III, p. 419. — Æcidiis hypophyllis v. petiolicolis, maculis rotundatis, usque 1 cm. diam. insidentibus, in greges majusculos laxe dispositis vel solitariis, cylindraceis, margine irregulariter lacerato, flavido; æcidiosporis angulato-globosis, subtiliter punctatis, flavidis 25-32 × 19-24; soris teleutosporiferis plerunque hypophyllis vel petiolicolis, sparsis 0,5-1,5 mm. diam., rotundatis vel in petiolis ellipticis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio vix v. parum constrictis, basi rotundatis, vel leniter attenuatis, subtilissime verruculosis, brunneis 30-42 × 19-23, episporio 2-3 μ. crasso; pedicello hyalino tenui, deciduo.

Hab. in foliis petiolisque vivis Velææ argutæ, Pasadena, California (Mc Clatchie).

238. **Puccinia Doremæ** Speschn. in Fungi paras. Transcapici et tur- 1167
kestanici 1901, p. 11, Syd. Mon. Ured. vol. I, p. 378. — Soris teleutosporiferis hypophyllis, maculis nullis v. flavescentibus insidentibus, valde inflatis, sæpissime in caule confluentibus, primo epidermide tectis, atro-brunneis; uredosporis immixtis subglobosis v. ovatis, echinulatis, brunneis, 20-24 × 16-20, poris germinationis binis rarius ternis instructis; teleutosporis oblongis v. ellipsoideis, apice modice incrassatis, medio lenissime constrictis, flavo-brunneis 32-34 × 15-19; pedicello hyalino, usque 16 μ. longo.

Hab. in foliis caulibusque Doremæ spec. in Turkestania.

239. **Puccinia Coulterophyti** Diet. et Holw. in Bot. Gaz. 1901, p. 335. 1168
— Maculis luteis vel nullis; soris hypophyllis minutis, sparsis; uredosporiferis pallide ochraceis; uredosporis obvatis 29-36 × 22-29 episporio hyalino apice valde incrassato, verrucis sparsis, globosis donato; soris teleutosporiferis nigro-brunneis, immersis, pulverulentis; teleutosporis oblongo-ellipsoideis vel irregularibus, utrinque rotundatis parce constrictis, 33-50 × 23-30, episporio pallide

brunneo, verrucoso, interdum irregulariter rugoso; pedicello deciduo.

Hab. in foliis Coulterophyti laxi, Chapala et Urnapam in Mexico.

240. **Puccinia Kundmanniæ** Lindr. Act. Soc. pr. Fauna et Fl. fenn. 1169
1902, XXII, p. 136, Syd. Mon. Ured. I, pag. 390, f. 340, Stat. æcidiosporus: *Æcidium Helosciadii* Har. — Syll. XVI, p. 335. — Pycnidiis amphigenis numerosis æque sparsis, melleis; æcidiis plerumque hypophyllis, sparsis, solitariis, cupulatis, flavidis, margine crasso integro, vix revoluto; teleutosoris, hypophyllis, sine maculis, sparsis, minutissimis, ægre conspicuis, epidermide primitus tectis, brunneis; teleutosporis ovato-oblongis v. oblongo-clavulatis, apice rotundatis, non incrassatis, medio non v. vix constrictis, basi plerumque attenuatis, levibus, flavo-brunneis, 32-48 × 16-25; pedicello hyalino, deciduo.

Hab. in foliis Kundmanniæ siculæ in insula Melita (Malta) et Algeria.

241. **Puccinia dictyospora** Tranzsch. in Act. pro Fauna et Fl. fen- 1170
nica XXII, n. 1, p. 48 (1902), Syd. Mon. Ured. vol. I, fasc. III, p. 420. — Æcidiis secus folii nervos in greges magnos elongatos densiuscule dispositis, cupulatis v. breviter cylindraceis, margine albido irregulariter lobato; æcidiosporis angulato-globosis vel ellipsoideis, subtilissime verruculosis, hyalinis, 17–26 μ. diam.; soris teleutosporiferis amphigenis, sparsis, vix confluentibus, minutis, rotundatis, pulverulentis, atro-brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis, non incrassatis, medio vix v. parum constrictis, basi rotundatis v. attenuatis, reticulatis, dilute brunneis, 28-42 × 20-24; pedicello deorsum hyalino, apicem versus flavido et incrassato.

Hab. in foliis Umbelliferæ cujusdam indeterminatæ et Cari spec., in Turkestania (Komarov).

242. **Puccinia Gayophyti** Speg. Myc. Argent. ser .II, 1902, p. 63. 1171
— Maculis nullis; acervulis cauli-foliicolis, innato-prominulis, sæpe confluentibus, compactis, atro-ferrugineis, 0,3-0,5 mm. diam.; teleutosporis obovatis, apice præcipue crasse tunicatis, parum infra medium septatis, vix constrictis levibus, intense fulvis, loculis 1-guttulatis, supero sæpius sublongiore crassioreque, 30-32 × 18-20; pedicello hyalino fragili subbreviore 15-20 × 5-7 suffultis.

Hab. ad caules foliaque Gayophyti humilis prope Puente

del Juca, Mendoza in Argentina. — Species *P. sphærostigmati* Diet. et Neg. valde affinis sed certe distincta.

243. **Puccinia sphæroidea** P. Henn. in Hedw. 1903, p. (107). — Soris 1172
caulicolis, gregariis, interdum foliicolis, sphæroideis, hemisphæricis v. pulvinatis, castaneis, v. rufo-brunneis, ca. 350 μ. diam.; teleutosporis ellipsoideis v. ovoideis, apice obtuso rotundatis v. applanatis, vix paullo incrassatis, medio septatis, leniter v. haud constrictis v. oblique verticaliter septatis, interdum continuis, 20–30 × 13-20, episporio flavo-brunneo, levi; pedicello usque ad 80 μ. elongato, hyalino fuscidulo, 3-4 μ. cr.

Hab. in caulibus foliisque Jussiææ spec. prope Baia Californiæ (C. A. Purpus).

244. **Puccinia Zauschneriæ** Syd. Mon. Ured. vol. I, fasc. III, p. 435, 1173
tab. XXV, fig. 361. — Æcidiis hypophyllis, copiosis, plerumque totam folii superficiem obtegentibus, cupulatis, flavidis, margine leniter inciso; æcidiosporis globosis, subglobosis v. angulatis, punctatis, hyalino-flavescentibus, 16-22 μ. diam. vel 19-25 × 14-18; soris uredosporiferis hypophyllis, sparsis, minutis, rotundatis, epidermide lacerata cinctis, brunneis; uredosporis globosis v. subglobosis, aculeatis castaneis 24-30 μ. diam.; soris teleutosporiferis hypophyllis, conformibus, subpulverulentis obscure brunneis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, apice incrassatis 5-8 μ. medio non vel vix constrictis, levibus, obscure brunneis, 32–40 × 18-25, rarius usque 43 μ. long.; pedicello hyalino brevissimo.

Hab. in foliis vivis Zauschneriæ californicæ in California, Amer. bor.

245. **Puccinia Epilobii** DC. Fl. franç. II, p. 221 (1805) et VI, p. 61 1174
(1815) nec *P. Epilobii* Schröt. et Sacc. Syll. VII, pag. 608, quæ = *P. Epilobii-tetragoni* (DC.) Wint. — Teleutosoris hypophyllis sparsis v. plerumque confertis, sæpe per totam folii superficiem æque distributis, rarius confluentibus, rotundatis, epidermide lacerata cinctis, pulverulentis, rufo-brunneis v. atro-brunneis; teleutosporis oblongis v. ellipsoideis, utrinque rotundatis, raro basim versus leniter tenuatis, apice non v. lenissime incrassatis, medio valde constrictis, levissime verrucosis, brunneo-fuscidulis, 27–48 × 16-25; pedicello hyalino 10-16 μ. long.

Hab. in foliis vivis Epilobii alpini, alsinefolii, anagallidifolii, davurici, origanifolii, palustris, rosei in Germania, Helvetia, Hungaria, Italia, Gallia, Britannia, Dania,

Suecia, Rossia et Groenlandia. — Huc ducenda *Pucc. Veronicæ Anagallidis* Oud., quæ revera in *Epilobii* specie, nec *Veronica* provenit.

246 **Puccinia Jambosæ** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, pag. 105. — Maculis fuscis, rotundato-explanatis, exaridis; poris amphigenis, aggregatis, applanatis, diutius epidermide brunnea tectis; uredosporis ellipsoideis v. ovoideis, flavis v. subhyalinis, 15-20 × 13-18, episporio asperatis; teleutosporis clavatis, apice paullo incrassatis, obtuso-rotundatis, 1-septatis, paullo v. haud constrictis, 28-40 × 15-10, flavo-brunneis, levibus; pedicello subhyalino, 15-18 × 2,5-3. 1175

Hab. in foliis Jambosæ vulgaris pr. S. Paulo Brasiliæ.

247. **Puccinia canadensis** Arthur Bull. Torr. Bot. Cl. 1904, p. 2. — Soris teleutosporiferis amphigenis, sæpe gregariis, pustuliformibus, coalescentibus, immersis, pulverulentis, pallide brunneis; teleutosporis subellipsoideis vel lineari-oblongis, 37-58 × 10-15, utrinque obtusis, episporio 1-2 μ. crasso, cinnamomeo-brunneo, minute rugoso, apice hyalino et incrassatulo, 3-5 μ.; pedicello exili, brevi, hyalino, deciduo. 1176

Hab. in foliis Violæ orbiculatæ, Laggan, Alberta, Amer. bor. et Glacier in Columbia Britannica.

248. **Puccinia Heliocarpi** Syd. Mon. Ured. vol. I, fasc. III, p. 447, tab. XXVI, fig. 370. — Soris teleutosporiferis hypophyllis, maculis rotundatis 2-4 mm. diam. fuscis v. flavo-fuscis insidentibus, minutis, sed plerumque in greges irregulariter confluentibus, pulvinatis, obscure brunneis; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. attenuatis, non vel lenissime incrassatis, medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneolis, 30-54 × 11-18, episporio tenuissimo; pedicello hyalino, persistenti, usque 80 μ. longo. 1177

Hab in foliis vivis Heliocarpi americani, Puenta de Chimbo Æquatoriæ (Lagerheim).

249. **Puccinia conglobata** Syd. Mon. Ured. vol. I, fasc. III, fig. 448, tab. XXVI, fig. 372. — Soris teleutosporiferis hypophyllis, maculis rotundatis v. irregularibus, 2-5 mm. diam., flavis centro fuscis insidentibus, plerumque paucis in globulum 1-2 mm. diam., omnino confluentibus, compactis obscure brunneis; teleutosporis ellipsoideis v. ovatis, utrinque rotundatis, apice non vel vix incrassatis, medio non v. lenissime constrictis levibus, pallide flavo- 1178

brunneolis, 24-32 × 19-25, episporio crasso; pedicello hyalino, crasso, persistenti, usque 80 μ. longo, sæpius e latere inserto.

Hab. in foliis vivis Trilumfettæ spec, prope Pesqueria Æquatoriæ (Lagerheim)

250. **Puccinia Komarovi** Tranzsch. in Syd Mon. Ured. vol. I, fasc. III, p. 451. — Æcidiis caulicolis et petiolicolis totam superficiem partis infectæ caulis occupantibus, aggregatis, immersis, demum apertis, breviter cupulatis, margine primum integro incurvato, dein lacerato, parum e matrice emergente; æcidiosporis angulato-globosis v. angulato-ellipsoideis, subtilissime echinulatis, intus aurantiacis 16-20 × 14-18; soris uredosporiferis hypophyllis, maculis minutis flavescentibus v. subnullis insidentibus, sparsis v. circa majorem centralem circinatim dispositis, rotundatis, pulverulentis, cinnamomeis; uredosporis subglobosis v. ellipsoideis, echinulatis, dilute brunneolis, 22-29 × 17-24, poro germinationis singulo apicali sæpe papillula lata humili tecto instructis; soris teleutosporiferis hypophyllis maculis minutis flavidis plerumque insidentibus, sparsis v. circinatim dispositis, minutis, rotundatis, mox nudis, castaneo-brunneis; teleutosporis ellipsoideis, ovatis v. subclavulatis, apice papilla hyalina præditis, interdum etiam sub septo apiculo minuto instructis, medio non v. lenissime constrictis, sublevibus, castaneo-brunneis, 27-40 × 16-25; pedicello hyalino, brevi, fragili. 1179

Hab. in foliis caulibusque Impatientis amphoratæ, parvifloræ in Turkestania, India or. etc.

251. **Puccinia Pritzeliana** P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. 95. — Syll. XVI, p. 1119 (nomen). — Maculis rotundatis, fuscis; soris hypophyllis, sparsis, cinnamomeis, pulvinatis, ca. 0, 5-1 mm. diam.; teleutosporis oblongis v. oblonge clavatis, apice obtuse rotundatis, incrassatis v. lateraliter 2-papillatis, interdum subcristatis, 1-septatis, paullo constrictis, flavidis, levibus, 30-50 × 13-23, stipite hyalino, consistenti, usque ad 150 μ. longo, 7-11 μ. cr., interdum inflato. 1180

Hab. in foliis vivis Tremandræ stelligeræ, Perth Australiæ occid.

252. **Puccinia rubricans** Holway, Journ. of Mycol. 1904, p. 165. — Maculis purpureis, plerumque circularibus, 1-6 mm. diam.; soris amphigenis, sæpius hypophyllis, solitariis, sparsis v. circinantibus in maculis latioribus; uredosoris læte brunneis; uredosporis pallide brunneis, globosis, rarius ovoideis, 36-44 × 32-46 fortiter echinulatis, spinulis 3-4 μ. long.; tunica 4-6 μ. crassa; teleutosoris uredosoros 1181

subsequentibus, nigris; teleutosporis ellipsoideis, ferrugineis, fortiter verrucosis, 60-80 × 40-44, apice breviter acutato v. rotundato, leviter incrassato; pedicello hyalino, usque 80 μ. longo.

Hab. in foliis Heteropteridis Portillanæ, Guadalajara, Mexico.

253. **Puccinia Echinopteridis** Holway Journ. of Mycol. 1904, p. 164. 1182
— Uredosoris amphigenis et caulicolis, brunneis, circinantibus, globoso-oblongis, subinde confluentibus; maculis pallide flavis; uredosporis læte brunneis, globoso-ovoideis, grosse echinulatis, 26-33 × 22-26; teleutosoris amphigenis, nigris, pulverulentis, minutis, dein confluentibus; teleutosporis globosis v. late ellipsoideis, non constrictis, subæqualiter tunicatis, fortiter verrucoso-reticulatis, atro-brunneis, 30-40 × 22-37; stipite varie inserto, sæpe lateraliter et prope sporam inflato eamque subæquante.

Hab. in foliis Echinopteridis Lappulæ, Guadalajara et Puebla, Mexico. — Proxime affinis *Puccinia insuetæ*, a qua difert uredosporis omnino diversis et teleutosporis profundius reticulatis.

254. **Puccinia Ribis-japonici** P. Henn. Einige neue japan. Ured. III, 1183
in Hedw. 1902, p. 19. — Maculis rotundatis subvesiculosis, fuscis; soris teleutosporiferis hypophyllis, gregarie pulvinatis, atro-fuscis, ca. 1-2 mm. diam.; teleutosporis clavatis vel oblonge fusoideis, apice incrassatis obtuse apiculatis, 1-septatis, paullo constrictis, 25-40 × 10-13, pallide brunneis; stipite persistente, flavidulo, 20-40 × 3,5-4,5.

Hab. in foliis Ribis japonici, Jyo Japoniæ.

255. **Puccinia Boroniæ** P. Henn. in Hedw. 1903, p. (73). — Soris ra- 1184
micolis, crasse erumpentibus, longe effusis, pulvinato-tuberculatis, atro-cinnamomeis, duris, usque ad 2 cm. longis, basi epidermide fissa pallida velatis; teleutosporis oblonge ellipsoideis, subclavatis vel subfusoideis, apice incrassatis, rotundatis v. obtuse gibbosis, brunneis, levibus, ca. 20-32 × 15-18; pedicello hyalino-flavidulo usque ad 150 × 3,5-4.

Hab. in ramulis Boroniæ spinescentis, W. Australia (L. Diels).

256. **Puccinia præclara** Syd. Mon. Ured. vol. I, fasc. III, p. 452. — 1185
Soris uredosporiferis plerumque hypophyllis, maculis nullis v. minutis obsoletis insidentibus, sparsis, punctiformibus, subpulverulentis, flavo-cinnamomeis; uredosporis globosis, subglobosis v. late ellipsoideis, dense valideque aculeatis, flavo-brunneis, 24-33 × 22-30,

episporio crassiusculo; soris teleutosporiferis conformibus, atris; teleutosporis late ellipsoideis, utrinque rotundatis, apice non incrassatis, medio constrictis, grosse verrucosis, obscure brunneis, septo plerumque verticali, 35-42 × 30-38; pedicello hyalino, persistenti, crasso, usque 50 μ. longo.

Hab. in foliis vivis Sapindaceæ cujusdam, prov. Chimborazo, Puente de Chimbo Æquatoriæ (Lagerheim).

257. **Puccinia Modiolæ** Syd. Mon. Ured. vol. I, fasc. III, p. 478, 1186
tab. XXVIII, fig. 392, Speg. Dec. Myc. Argent. 10. — Soris teleutosporiferis hypophyllis, maculis minutis, rotundatis, 2-3 mm. diam., depressulis, flavidis insidentibus, sparsis v. hinc inde aggregatis, mediocribus, 1-2 mm. diam., rotundatis, compactis, primitus rufis vel flavo-rufis, dein rufo-brunneis; teleutosporis anguste fusoideis v. linearibus, utrinque attenuatis, apice incrassatis sæpeque inciso-fissis, medio non v. vix constrictis, levibus, flavescentibus, 54-85 × 10-16; pedicello hyalino persistenti, usque 150 μ. longo, crasso.

Hab. in foliis vivis Modiolæ prostratæ in Argentina et Uruguay.

258. **Puccinia exilis** Syd. Mon. Ured. vol. I, fasc. III, pag. 481, 1187
tab. XXIX, fig. 396. — Soris teleutosporiferis hypophyllis, maculis minutis orbicularibus ca. 2 mm. diam., arescendo albidis insidentibus, solitariis in quaque macula, mediocribus 1-3 mm. diam., rotundatis v. subrotundatis, compactis, flavo-brunneis; teleutosporis oblongis v. oblongo-clavulatis, apice rotundatis v. leniter acutiusculis, non incrassatis, medio leniter constrictis, basi rotundatis v. attenuatis, levibus, subhyalinis, 27-40 × 10-14, episporio tenuissimo, pedicello hyalino, tenui, subpersistenti, sporam æquante vel ea longiore.

Hab. in foliis vivis Pavoniæ leucanthæ, P. roseæ, in Brasilia (Poeppig, Regnell).

259. **Puccinia Anodæ** Syd. Mon. Ured. vol. I, fasc. III, pag. 475, 1188
tab. XXVIII, fig. 391. — Soris teleutosporiferis hypophyllis, maculis minutis rotundatis, flavidis v. brunneolis, ca. 2-3 mm. diam. insidentibus, minutis, sparsis vel sæpe in circulos usque 3 mm. latos dispositis et omnino confluentibus, compactis, obscure brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis non vel vix incrassatis, medio non vel lenissime constrictis, basi plerumque rotundatis, levibus, flavis, 27-35 × 16-24; pedicello hyalino, crassiusculo, persistenti, usque 90 μ. longo.

Hab. in foliis vivis Anodæ hastatæ, San Miguel Uspantan Guatemala (Heyde et Lux).

260. **Puccinia Sieversiæ** Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1189
Soris teleutosporiferis amphigenis, sparsis, rotundatis vel ovalibus, epidermide bullata tectis, immersis, pulverulentis, brunneis; teleutosporis ellipticis vel ovato-oblongis, 32-40 × 20-26, utrinque rotundatis vel interdum inferne conicis, ad septum non vel vix constrictis; episporio rugulosulo, sublevi, cinnamomeo-brunneo 1, 5-2,5 μ. crasso, superne 4-6 μ. crasso, sæpe subhyalino-umbonato; pedicello brevi, sporâ breviore, exili, subhyalino.

Hab. in foliis Sieversiæ turbinatæ, Fish Lake, in montibus Uintah, Amer. bor.

261. **Puccinia turrita** Arth. in Bull. Torr. Bot. Club XXIX, 1902, 1190
p. 230, Syd. Mon. Ured. vol. I, fasc. III, p. 504. — Soris teleutosporiferis amphigenis, sparsis, rotundatis, minutis, 0,5-1 mm. diam., mox nudis, subpulverulentis, obscure brunneis; teleutosporis ellipsoideis v. oblongis, apice rotundatis v. attenuatis, incrassatis, usque 6 μ. medio leniter constrictis, basi rotundatis rarius leniter attenuatis, verrucosis, flavo-brunneis, 27-40 × 16-22, rarius usque 24 μ. latis; pedicello hyalino, tenui, brevi, caduco.

Hab. in foliis vivis Saxifragæ bronchialis, Maniton, Colorado Amer. bor. (Holway).

262. **Puccinia Parnassiæ** Arthur, Bull. Torr. Bot. Cl. 1904, p. 3. — 1191
— Soris teleutosporiferis amphigenis, interdum gregariis, pustuliformibus, coalescentibus, immersis, pulverulentis, intense brunneis; teleutosporis ellipticis, 30-37 × 16-20, utrinque rotundatis vel obtusis; episporio 1-2 μ. crasso, brunneolo, levi vel superne obscure punctato sæpe apice hyalino-umbonato; pedicello hyalino, sporâ breviore, deciduo.

Hab. in foliis Parnassiæ fimbriatæ, Bauff, Alberta Americæ bor. (E. W. D. Holway).

263. **Puccinia Laurentiana** Trelease, Harrim. Alaska Exped. Crypt. 1192
p. 38. — Soris hypophyllis, castaneis, rotundis, circ. 1 mm. diam.; teleutosporis brunneis, subconstrictis, 50 × 20, vertice incrassatis et pallide apiculatis; tunica crassiuscula nec striata nec verrucosa: pedicellis hyalinis, brevibus, fragilibus.

Hab. in foliis Saxifragæ neglectæ var. stoloniferæ, St. Lawrence Island, Behring Sea, Alaska (Macoun). — Affinis *Pucc. Saxifragæ-ciliatæ.*

264. **Puccinia aspera** Diet. et Holw. in Bull. Torr. Bot. Club XXIX, 1193

1902, p. 230, Syd. Mon. Ured. vol. I, fasc. III, p. 503. — Soris teleutosporiferis amphigenis vel petiolicolis, magnis, 1,5-4 mm. diam., rotundatis, pulverulentis, nudis, castaneo-brunneis; teleutosporis ellipsoideis vel oblongis, apice rotundatis, non incrassatis, medio plerumque leniter constrictis, basi rotundatis, rarius leniter attenuatis, verrucis majusculis planis irregularibus obsitis, flavo-brunneis, 30-42 × 16-24; pedicello hyalino, brevi, caduco.

Hab. in foliis vivis Saxifragæ Mertensianæ, Mt. Paddo, in Washington Americæ bor. (W. N. Suksdorf).

265. **Puccinia Lindrothii** Syd. in Acta pro Fauna et Fl. fenn. XXII, n. 1, p. 62 (1902), Syd. Mon. Ured. vol. I, fasc. III. pag. 418, tab. XXV, f. 348. — Æcidiis hypophyllis v. petiolicolis v. caulicolis, maculis indeterminatis pallidis insidentibus, in foliis greges rotundatos vel irregulares, usque 5 mm. diam. formantibus, in petiolis caulibusque in greges elongatos et sæpe longe confluentes confertim dispositis, cupulatis, albidis, margine irregulariter lacerato; æcidiosporis globosis, subglobosis, angulatis v. ovatis, tenuissime verruculosis, flavidis, 22-32 × 19-25; soris teleutosporiferis amphigenis v. caulicolis, plerumque hypophyllis, sine maculis, sparsis v. hinc inde subgregariis, rotundatis, 0,5-1 mm. diam., epidermide lacerata cinctis, in caule oblongis et diutius tectis, pulverulentis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, utrinque rotundatis, apice non incrassatis, medio non v. vix constrictis, verruculosis, intense castaneo-brunneis, 30-42 × 18-26, episporio 3-4 μ. cr.; pedicello hyalino, tenui, deciduo. 1194

Hab. in foliis, petiolis caulibusque vivis Velææ (Arracaciæ) Hartwegii, in California (Blasdale).

266. **Puccinia Alyssi** Lindr. Acta Soc. Fauna et Fl. fennica 1902, XXII, n. 3, p. 11, *P. Alyssi* Syd. in Ann. Mycol. 1903, p. 18. — Soris teleutosporiferis hypophyllis v. sæpe caulicolis, in folio sparsis, rotundatis minoribusque, in caule majusculis crassis sæpe confluentibus et tunc confluendo usque 1 cm. long., epidermide fissa cinctis v. semivelatis, pulvinatis, atro-brunneis; teleutosporis ellipsoideis, utrinque rotundatis, apice vix v. leniter incrassatis, usque 8 μ., medio non v. parum constrictis, levibus, castaneo-brunneis, 38-52 × 22-32, episporio 5-6 μ. cr.; pedicello subhyalino, persistenti, usque 60 μ. longo; mesosporis interdum immixtis, subglobosis v. ovatis, 30-35 × 23-27. 1195

Hab. in caulibus et petiolis Alyssi spinosi in Hispania et Alyssi halimifolii pr. Porto Maurizio Italiæ bor.

267. **Puccinia Cochleariæ** Lindr. Acta Soc. Fauna et Fl. fennica 1902, XXII, n. 3, p. 10. — Teleutosoris minutis rotundatis vel ellipticis, subsparsis, diu epidermide cinctis, nigricantibus, denique nudis, pulverulentis; teleutosporis vulgo anguste ellipsoideis, oblongis, sæpe subirregularibus, medio distincte constrictis, 32-40 × 13-18; membrana flavido-brunneola, longitrorsum striolata, supra porum germ. subhyalino-papillatis; pedicellis 40-60 × 4-5, tenuibus, labilibus. 1196

Hab. in foliis Cochleariæ fenestratæ, groenlandicæ, pyrenaicæ in Grœnlandia et Gallia.

268. **Puccinia Eutremæ** Lindr. Acta Soc. Fauna et Fl. fenn. 1902, XXII, n. 3, p. 9. — Soris foliicolis, petiolicolis et caulicolis, suborbiculari-oblongis, 0,5–1,5 mm. diam., epidermide vesiculosa grisea tectis, demum nudatis, pulvereis, subnigris; teleutosporis oblongis, utrinque sæpius rotundatis, medio fortiter constrictis, 30-38 × 12-14; membrana tenui, intense brunnea, æquicrassa, tenuiter crebre striolata; poro germin. cellulæ superioris laterali, inferioris prope septum sito; pedicellis 40-60 × 4-5, tenuibus, labilibus. 1197

Hab. in foliis Eutremæ Edwardsii in Lapponia (Brotherus). — Adsunt interdum mesosporæ 26-29 × 11-13.

269. **Puccinia Litseæ** (Pat.) Diet. et Henn. Einige neue japan. Ured. III, in Hedw. 1902, p. (19), *Æcidium Litseæ* Pat. Champ. Asiat. p. 3: cfr. Syll. XI, pag. 221. — Maculis vesiculoso-subcupulatis, pallide cinctis; tuberculis hypophyllis oppositis, hemisphærico-pulvinatis, lignosis, botryose verrucosis, ca. 1,5-3 mm. diam.; pseudoperidiis immersis, tectis dein erumpentibus, cupulatis, flavidis e cellulis tabulari-polyhedricis flavido-hyalinis, 20–35 μ. compositis, intus cellulis sterilibus oblongis, subquadrangulis, hyalinis, verruculosis 40-70 × 15-25, impletis, æcidiosporis haud conspicuis; soris teleutosporiferis deinde ad basim in loculis æcidiorum generatis; teleutosporis oblonge ellipsoideis v. subfusoideis, utrinque attenuatis, apice paullo incrassatis, obtusiusculis, 40-50 × 20-28, medio 1-septatis, haud vel paullo constrictis, mox in cellulis subconoideis dehiscentibus, episporio castaneo, granuloso-verrucoso; pedicello plus minus elongato, fuscidulo, fragili. 1198

Hab. in foliis Litseæ glaucæ, Tosa Japoniæ.

270. **Puccinia texana** Holway et Long in Bull. Torr. Bot. Club 1902, p. 113, fig. 3, Syd. Mon. Ured. vol, I, fasc. III, p. 325. — Soris teleutosporiferis hypophyllis, maculis minutis irregularibus, brunneis vel atro-purpureis insidentibus, sparsis v. paucis aggregatis, 1199

minutis, ca. 0,5 mm. diam., epidermide lacerata cinctis, subpulverulentis, atro-brunneis; uredosporis immixtis, globosis, subglobosis v. ellipsoideis, minute echinulatis, flavo-brunneolis, 18-23 μ. diam. v. 22-30 × 15-24; teleutosporis ellipsoideis, utrinque rotundatis, apice non vel vix, ca. 4 μ. cr., medio constrictis, levibus, castaneo-brunneis, 27-38 × 18-27; pedicello hyalino, crassiusculo, persistenti, usque 50 μ. longo, non inflato.

Hab. in foliis vivis Berberidis trifoliolatæ, Austin in Texas Americæ bor. (Long).

271. **Puccinia Berberidis-trifoliæ** Diet. et Holw. in Bot. Gaz. XXXI, 1901, p. 328, Syd. Mon Ured. vol. I, fasc. III, p. 524, tab. XXXI, f. 423. — Soris teleutosporiferis hypophyllis, maculis brunneis v. atro-purpureis insidentibus, sparsis vel aggregatis, confluentibusque, mediocribus, 1-3 mm. diam., in petiolis linearibus, pulvinatis, atris; teleutosporis oblongis v. oblongo-clavatis, apice rotundatis v. sæpius conico-attenuatis, varie incrassatis, 4-8 μ. v. etiam usque 16 μ., medio constrictis, basi plerumque rotundatis, levibus, dilute brunneis, 26-50 × 14-24; pedicello brunneolo, persistenti, usque 75 μ. longo, non inflato; mesosporis interdum intermixtis. 1200

Hab. in foliis vivis Berberidis trifoliæ, Rio Hondo, Mexico (Holway).

272. **Puccinia atragenicola** (Bubák) Syd. Mon. Ured. vol. I, fasc. III, p. 538. *P. De-Baryana* Thuem. f. *atragenicola* Bubák. *P. Atragenes* Fuck. (1869) nec Hausm. (1861). — Soris teleutosporiferis hypophyllis, minoribus interdum paucis, etiam epiphyllis, maculis orbicularibus, 2-5 mm. diam. flavis v. brunneis insidentibus, subinde petiolicolis, magnis, sparsis vel confluentibus, 1-5 mm. longis, compactis, duris, tectis, atris; teleutosporis clavatis, apice rotundatis, truncatis vel acutiusculis, valde incrassatis, usque 12 μ., medio leniter constrictis, deorsum attenuatis, flavo-brunneis, apice obscurioribus, levibus, 44-82 × 15-24, pedicello brunneolo, brevi, crasso. 1201

Hab. in foliis petiolisque vivis Atragenes alpinæ in Austria, Helvetia, Italia.

273. **Puccinia clavata** Syd. Mon. Ured. vol. I, fasc. III, pag. 545, tab. XXXI, fig. 428. — Soris teleutosporiferis plerumque hypophyllis, maculis minutis orbicularibus ca. 2 mm. diam., brunneis insidentibus, sparsis, minutis, epidermide diutius tectis, dein ea fissa cinctis, compactis, atris; teleutosporis clavatis, apice rotundatis, truncatis v. leniter acutiusculis, valde incrassatis, usque 10 μ., 1202

medio constrictis, levibus, pallide brunneis, apice obscure brunneis, 42-62 μ. longis, loculo superiore 14-22 μ. lato, inferiore 11-16 μ. lato; pedicello brevi, brunneolo.

Hab. in foliis vivis Clematidis hexapetalæ, in Nova Zelandia (Bastian).

274. **Puccinia Castagnei** Schrœt. in Cohn Beiträge III, p. 62 (1879), 1203
Syd. Mon. Ured. vol. I, fasc. III, p. 551. — Soris teleutosporiferis amphigenis, maculis vix distinctis, sparsis, raro paucis aggregatis, minutis, diutius epidermide tectis, rotundatis subpulverulentis, ferrugineis; uredosporis immixtis subglobosis, sæpius ellipsoideis vel plerumque piriformibus, primo flavis, dein brunneolis verrucosis, apice valde (usque 8 μ.) incrassatis, 27-33 × 21-25; teleutosporis ellipsoideis v. oblongo-ellipsoideis, apice rotundatis, subinde truncatulis, non incrassatis, medio vix v. leniter constrictis, basi rotundatis, sublevibus, brunneis, 28-40 × 16-22; pedicello hyalino, brevissimo.

Hab. in foliis vivis Thalictri angustifolii, Istres Galliæ (Castagne).

275. **Puccinia Trautvetteriæ** Syd. et Holw. in Syd. Mon. Ured. vol. I, 12[illegible]
fasc. III, p. 552, tab. XXXII, fig. 432. — Soris teleutosporiferis hypophyllis, maculis orbicularibus vel suborbicularibus 2-3 mm. latis, griseo-brunneis insidentibus, sparsis, mediocribus, 1-2 mm. diam., rotundatis v. subrotundatis, compactis, atris; teleutosporis clavatis, apice rotundatis, truncatis v. rarius leniter acutiusculis, parum incrassatis, usque 3 μ., medio non v. vix constrictis, basi attenuatis, levibus, dilute brunneolis, 40-56 × 11-16; pedicello brevi, brunneolo.

Hab. in foliis vivis Trautvetteriæ in monte Tacoma, Washington, Amer. bor. (Holway).

276. **Puccinia melasmioides** Tranzsch. in Syd. Mon. Ured. vol. I, 1205
fasc. III, p. 538. — Soris teleutosporiferis hypophyllis v. petiolicolis, tandem etiam epiphyllis, maculis indeterminatis flavescentibus, insidentibus, in foliis in acervulum rotundatum subrotundatum v. rarius irregularem usque 1 cm. diam. plerumque omnino confluentibus, in petiolis acervos irregulares elongatos sæpe formantibus; teleutosporis lineari-clavatis, apice truncatis vel acutiusculis, incrassatis, 2-6 μ., medio non vel parum constrictis, basi in pedicellum attenuatis, levibus, dilute brunneis, apice obscurioribus 45-75 × 12-16; pedicello brevi, persistenti, brunneolo, usque 15 μ. longo; paraphysibus numerosis, brunneis.

Hab. in foliis petiolisque vivis Aquilegiæ vulgaris var., in jugo transalaico, ad fines Sinæ, ad fluv. Irkeschtam Turkestaniæ (W. Tranzschel). — Var. **Aquilegiæ viridifloræ** Karst. Fung. nov. Loennb. 1904, p. 6 (Finska Vetensk. Soc.): teleutosporis in soros epiphyllos, erumpentibus, plano-convexos, nudos, confluentes, raro sparsos atrofuscos congestis, elongato-clavatis, medio haud v. paullulum constrictis, flavescentibus, 40-60 × 8-12. In foliis Aquilegiæ viridifloræ in regione Baicalensi, Listvinitschnoje Septembri 1902 (O. A. F. Lönnbohm).

277. **Puccinia Lycoctoni** Fuk. Symb. Nachtr. III, p. 11 (1875), Syd. 120
Mon. Ured. vol. I, fasc. III, p. 527, *Æcidium Lycoctoni* Kalchbr. in herb., *Uredo Lycoctoni* Kalchbr. in herb. — Æcidiis hypophyllis, maculis orbicularibus brunneis insidentibus, in greges rotundatos v. ellipticos dense confertis, sæpe etiam petiolicolis, cupulatis, margine denticulato, albido; æcidiosporis irregulariter globosis v. ellipsoideis, subtiliter verruculosis, aurantiaco-flavis, 16-24 µ. diam. v. usque 26 µ. longis, 14-20 µ. latis; soris teleutosporiferis hypophyllis, raro amphigenis, solitariis v. per paucos aggregatis, magnis, usque 1,5 cm. diam., in petiolis caulibusque elongatis variæque magnitudinis, plerumque, diu epidermide plumbea dein irregulariter fissa tectis, pulverulentis, atro-brunneis; teleutosporis oblongis v. ellipsoideis apice papilla late conica v. hemisphærica dilutiore v. subhyalina donatis, medio non v. parum constrictis, basi rotundatis v. vix attenuatis, flavis v. flavo-brunneis, levibus 25-45 × 20-28; pedicello hyalino, brevi, caduco.

Hab. in foliis, petiolis caulibusque vivis Aconiti Lycoctoni in Germania, Austria, Hungaria, Italia, Helvetia, Norvegia. — A *P. Trollii* Karst., quacum conjungitur a cl. Winter et in Sylloge VII, p. 670, teste Ed. Fischer, certe distincta.

278. **Puccinia gemella** Diet. et Holw. in Syd. Mon. Ured. vol. I, 120
fasc. III, p 541. — Soris teleutosporiferis amphigenis v. petiolicolis, in epiphyllo sæpe magis evolutis, maculis nullis vel vix distinctis insidentibus, irregulariter sparsis v. hinc inde confluentibus, mediocribus, 750-1500 µ. diam., pulverulentis, atro-brunneis; teleutosporis fusoideo-oblongis, apice modo rotundatis, modo attenuatis, papilla valida conica dilutiore instructis, medio non constrictis, basi sæpius attenuatis, levibus, brunneis, 36-50 × 22-26; pedicello hyalino, brevi.

Hab. in foliis Calthæ leptosepalæ, in monte Tacoma, Washington Amer. bor. (Holway).

279. **Puccinia cohæsa** Long in Bull. Torr. Bot. Club. 1902, p. 112, 1208
fig. 2, Syd. Mon. Ured. vol. I, fasc. III, p. 529. — Æcidiis hypophyllis, maculis indeterminatis flavescentibus insidentibus, æque v. irregulariter per folium distributis, cupulatis, margine in lobos quatuor recurvatos plerumque fissis; æcidiosporis polygoniis, subtiliter verruculosis, flavescentibus, 16-22 μ. diam.; soris uredosporiferis hypopyllis, maculis flavidis insidentibus, sparsis, rotundatis, 0,8-1 mm. diam., pulverulentis, cinnamomeis; uredosporis plerumque ellipsoideis vel oblongis, apice incrassatis, usque 6 μ., echinulato-verruculosis, flavidis, 25-35 × 14-22, paraphysibus usque 70 μ. long. capitato-incrassatis, usque 14 μ. immixtis; soris teleutosporiferis plerumque hypophyllis, sparsis v. annulatim dispositis v. in greges usque 3 mm. diam. confluentibus, sæpe intra æcidia ortis, pulverulentis, epidermide diutius tectis, atris; teleutosporis ellipsoideis, utrinque rotundatis, apice non incrassatis, medio valde constrictis, verrucis magnis dense obsitis, castaneo-brunneis, 30-40 × 18-24; pedicello hyalino, brevi, deciduo.

Hab. in foliis vivis Anemones carolinianæ, Austin, Texas, Amer. bor. (Long).

280. **Puccinia suffusca** Holw. Journ. of Mycol. 1902, p. 171, Syd. 1209
Mon. Ured. p. 532, *P. Pulsatillæ* Rostr. nec Kalchbr. — A *P. fusca* differt teleutosporis sæpe 1-cellularibus, saturatius coloratis et inæqualiter longiusque tuberculatis.

Hab. in foliis petiolisque vivis Pulsatillæ pratensis, P. patentis, P. vulgaris, P. grandis, P. hirsutissimæ in Europa et America. — De Pucciniis anemonicolis cfr. Bubák in Hedw. 1903, p. (28).

281. **Puccinia gigantispora** Bubák in Sitzungster. Königl. Ges. Wis- 1210
sensch. Prag 1901, n. II, p. 9, fig. 51-61, Syd. Mon. Ured. vol. I, fasc. III, p. 537. — Æcidiis hypophyllis, maculis rotundatis vel subrotundatis purpurascentibus, 2-4 mm. diam. insidentibus, gregariis, subinde soris teleutosporiferis circumdatis, breviter cylindraceis, margine reflexo, inciso, albido; æcidiosporis polyhedricis, verruculosis, flavidis, 24-29 × 20-22; soris teleutosporiferis amphigenis, maculis purpurascentibus insidentibus, sparsis v. circa æcidia aggregatis confluentibusque, minutis v. majoribus, 1-3 mm. diam., rotundatis v. irregularibus, compactis, atris; teleutosporis clavatis v. linearibus, apice rotundatis, truncatis vel acutiusculis, valde incrassatis, usque 10 μ., medio non vel vix constrictis, deorsum attenuatis, levibus, pallide brunneis, sursum, præcipue ad apicem,

obscure brunneis, 50-104 μ. longis, loculo superiore 10-22 μ., inferiore 7-15 μ. lato; pedicello hyalino, brevi; paraphysibus paucis, flavo-brunneis.

Hab. in foliis vivis Anemones patentis var. Nuttallianæ pr. Livingston in Montana (Seymour), A. multifidæ in Wyoming (Merrill et Wilcox) et in Canada (Holway).

282. **Puccinia Pulsatillæ** Kalchbr. in Mathem. es termessett. Közlemenyek III, pag. 307 (1865), Syd. Mon. Ured. vol. I, fasc. III, pag. 536. — Soris teleutosporiferis amphigenis, maculis plus minusve bullatis rufo-vel purpureo-cintis insidentibus, magnis, usque 1/2 cm. diam., duris, crassis, compactis, tectis, atris; teleutosporis oblongo-clavatis, clavatis v. linearibus, apice rotundatis, truncatis v. leniter acutiusculis, valde incrassatis (6-12 μ.), medio leniter constrictis, basi attenuatis, levibus, dilute brunneis, apice obscure brunneis, 42-92 × 12-24; pedicello brevi, brunneolo; paraphysibus brunneis, tremellosis intermixtis. 1211

Hab. in foliis petiolisque vivis Anemones (Pulsatillæ) alpinæ, montanæ, nigricantis, patentis, var. Nuttallianæ, pratensis, Pulsatillæ, silvestris, sulphureæ in Germania, Austria, Hungaria, Helvetia, Italia, America bor.

283. **Puccinia retecta** Syd. in Ann. Mycol. 1903, p. 34, et Mon. Ured. vol. I, fasc. III, p. 535. — Soris teleutosporiferis amphigenis v. petiolicolis, maculis flavidis usque 5 mm. latis insidentibus, minutis, sed in greges rotundatos usque 4 mm. latos, dense dispositis, epidermide lacerata cinctis, pulverulentis, obscure brunneis vel cinnamomeo-brunneis; teleutosporis ellipsoideis, apice rotundatis, non incrassatis, medio leniter constrictis, basi sæpius rotundatis, dense et distincte verruculosis, brunneis, 32-40 × 21-27; pedicello hyalino, brevi, caduco. 1212

Hab. in foliis petiolisque Anemones narcissifloræ, Buffalo Pass, Park Range, Colorado Americæ bor. (C. L. Shear).

284. **Puccinia leptosperma** Syd. Mon. Ured. vol. I, fasc. III, p. 557, tab. XXXII, fig. 434. — Soris teleutosporiferis hypophyllis, maculis irregularibus indeterminatis flavis vel flavo-brunneolis insidentibus, sparsis v. paucis in greges minutos aggregatis, minutis, compactis, flavo-brunneis v. brunneis; teleutosporis oblongis vel clavatis, apice rotundatis v. leniter acutiusculis, non v. rarius vix incrassatis, ca. 5 μ., medio constrictis, basi plerumque attenuatis, levibus, subhyalinis, 27-45 × 10-15, episporio tenuissimo; pedicello hyalino tenui, ca. 60 μ. longo. 1213

Hab. in foliis Drymariæ cordatæ, Kamerun (Preuss) et in ins. Madagascar (Hildebrandt).

285. **Puccinia modica** Holway in Journ. of Mycol. 1904, p. 164. — Soris amphigenis, rotundis v. elongatis, $^1/_2$ 1 mm. diam.; uredosoris brunneis; uredosporis globosis, crebre plano-tuberculatis, flavido-brunneis, 20-24 µ. diam.; poris germinativis 4-5 sparsis; teleutosoris nigris, pulverulentis; teleutosporis late ellipsoideis, brunneis, levibus, 36-40 × 24-32, crasse tunicatis, apice rotundato 4-8 µ. cr.; pedicellis persistentibus, hyalinis, usque 120 µ. long.; mesosporis intermixtis. 1214

Hab. in foliis Arenariæ Peyritschii, A. reptantis etc. pluribus locis in Mexico.

286. **Puccinia Galeniæ** Diet. in Syd. Mon. Ured. vol. I, fasc. III, p. 562 — Soris uredosporiferis amphigenis, sparsis, minutis vel mediocribus, obscure brunneis; uredosporis globosis, subglobosis vel sæpius ellipsoideis, breviter echinulatis, flavo-fuscis, 18-29 × 18-22, episporio crasso, poris germinationis quatuor instructis; teleutosporis immixtis, ovatis, apice rotundatis, modice incrassatis, medio paullo constrictis, levibus, brunneis, ca. 30 × 22; pedicello sporam subæquante. 1215

Hab. in foliis vivis Galeniæ africanæ, sarcophyllæ, Swakopmund Africæ austr. (Stapf, C. Klugkist).

287. **Puccinia Stuckerti** Speg Myc. Arg. ser. I, in An. Soc. Cient. Arg. 1899, p. 266. — Maculis plane nullis; soris quandoque minutis 0,5-1 mm. diam., quandoque ob confluentiam majusculis 2-5 mm. diam, lenticulari-prominulis, amphigenis e pulverulento compactiusculis, atris; teleutosporis ellipticis vel subovatis, utrinque obtusissimis, levibus, 34 × 25-26, episporio crassiusculo ubique æquali vestitis, medio 1-septatis sed non constrictis, loculis sæpius 1-guttulatis, intense ferrugineis, pedicello mox fluxili crassiusculo 30-40 × 5-7 hyalino fultis. 1216

Hab. in foliis vivis Gomphrenæ, prope Cordoba Argentinæ.

288. **Puccinia Dielsiana** P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. 95, Sacc. — Syll. XVI, p. 1119 (nomen). — Soris caulicolis, epidermide erumpentibus, oblonge pulvinatis, firmis, atris, ca. 5 mm. longis; teleutosporis ellipsoideis v. ellipsoideo-ovoideis, apice rotundato-obtusis, paullo incrassatis, 1-septatis, minus constrictis 35-42 × 23-25, episporio castaneo, levi; pedicello subhyalino 60-80 × 5-6, consistenti. 1217

Hab. in caulibus Chenopodiaceæ, Perth Australiæ occid.

289. **Puccinia pachyplœa** Syd. Mon. Ured. vol. I, fasc. III, p. 581, 1218
tab. XXXII, fig. 445. — Soris teleutosporiferis amphigenis vel petiolicolis, maculis nullis vel indistinctis, sparsis, rotundatis, in petiolis oblongis, mox nudis, usque 1 mm. diam., atris; teleutosporis ellipsoideis v. subgloboso-ellipsoideis, utrinque late rotundatis, apice non incrassatis, medio non vel lenissime constrictis, grosse verrucosis, amœne obscureque castaneo-brunneis, 35–46 × 24–32, episporio crassissimo 4.5-5,5 μ. lato; pedicello brevi, hyalino; mesosporis globosis vel subglobosis, verrucosis, obscure castaneo-brunneis, ca. 27 μ. diam.

Hab. in foliis petiolisque vivis Rumicis tuberosi, pr. Riwandous Kurdistaniæ assyriacæ Bornmüller.

290. **Puccinia Aristolochiæ** (D. C. Wint. — Syll. VII. p. 614 — var. 1219
crassior Syd. Mon. Ured. vol. I, fasc. III, p. 583. — Soris teleutosporiferis hypophyllis, solitariis, paucis 1-8) in quoque folio, multo majoribus, 2–5 mm. diam., subcompactis, epidermide tectis vel, ea stellatim v. irregulariter fissa, semivelatis, rotundatis, obscure atro-brunneis; teleutosporis ut in typo.

Hab. in foliis Aristolochiæ maurorum, inter Damascum et Beirut, Syriæ.

291. **Puccinia achroa** Syd. Mon. Ured. vol. I, fasc. III, pag. 438, 1220
tab. XXVI, fig. 365. — Soris teleutosporiferis hypophyllis, maculis epiphyllis minutissimis sæpe ægre conspicuis orbicularibus insidentibus, sparsis, rotundatis, minutis vel mediocribus, 0,8-1.5 mm. diam., compactis, primitus cinnamomeis, dein atris; teleutosporis oblongis v. oblongo-fusoideis, apice rotundatis v. obtuse attenuatis, incrassatis usque 8 μ., medio leniter constrictis, basi sæpius attenuatis, levibus, hyalino-flavescentibus, 50–58 × 16-24; pedicello hyalino, crasso, persistenti, usque 70 μ. longo; mesosporis interdum paucis immixtis.

Hab. in foliis vivis Elæagni macrophylli, Kamakura Japoniæ (S. Hori).

292. **Puccinia fusispora** Syd. Mon. Ured. vol. I, fasc. III, p. 590, 1221
tab. XXXIII, fig. 448. — Soris teleutosporiferis hypophyllis, maculis minutis 1 mm. diam., brunneolis insidentibus, sparsis, minutis, solitariis, nunquam confluentibus, rotundatis, compactis, obscure brunneis; teleutosporis fusoideis, apice acutiusculis, incrassatis, 5-8 μ., medio leniter constrictis, basi attenuatis, levibus, pallide flavo-brunneis, 40–55 × 8-11; pedicello hyalino, persistenti, sporam æquante.

Hab. in foliis vivis Urticæ angustifoliæ in prov. Mukdenensi Mandschuriæ (Komarow).

293. **Puccinia Satyrii** Syd. Monogr. Ured. vol. I (1903), pag. 594, tab. XXXIII, f. 453. — Soris teleutosporiferis hypophyllis, sine maculis, plerumque per totum folium æque gregariis, minutis, punctiformibus, rotundatis, compactiusculis, luteo-fulvis; uredosporis immixtis globosis v. subglobosis, echinulatis, flavescentibus, 16-24 µ. diam; teleutosporis oblongis vel fusiformibus, utrinque attenuatis, apice valde incrassatis, usque 11 µ., medio non vel vix constrictis, levibus, dilute flavidis, 32-52 × 13-19; pedicello hyalino, persistenti, sporam subæquante. 1222

Hab. in foliis languescentibus Satyrii carnei, prope False Bay Africæ austr. (Mac Owan).

294. **Puccinia Megatherium** Syd. Monogr. Ured. I (1903), pag. 624, tab. XXXV, fig. 475. — Soris teleutosporiferis amphigenis, sine maculis, minutis vel mediocribus, oblongis vel elongatis confluentibusque, pulverulentis, epidermide fissa cinctis, cinnamomeis; teleutosporis late ellipsoideis v. subglobosis, utrinque rotundatis, apice non incrassatis, medio non constrictis, levibus, 40-72 × 40-68, episporio usque 20 µ. crasso; pedicello hyalino, tenui, brevissimo vel subnullo. 1223

Hab. in foliis vivis Gageæ reticulatæ in Caucaso.

295. **Puccinia Allii-japonici** Diet. in Bot. Jahrb. 1902, p. 47. — Soris oblongis, epidermide primo tectis, deinde ea fissa cinctis, castaneis; uredosporis obovatis vel ellipsoideis, 30-34 × 23-26, episporio hyalino, verruculoso, poris numerosis instructo, vestitis; teleutosporis forma valde varia, oblongis v. cuneatis, ad septum plus minusve profunde constrictis, cellula superiore plerumque rotundata, inferiore cuneata vel oblonga, episporio levi, brunneo, apice haud incrassato vestitis, 35-62 × 18-27; pedicello brevi, caduco instructis. 1224

Hab. in foliis et caulibus Allii japonici in prov. Kosuké Japoniæ (Kusano).

296. **Puccinia Moreniana** Dudley et Thomp. in Journ. of Mycol. 1904, p. 53. — Soris teleutosporiferis hypophyllis, sparsis, pustulatis, rotundato-oblongis, 1-3 × 1-12 mm., epidermide velatis, dein erumpentibus, pulverulentis, castaneo-brunneis; teleutosporis forma magnitudineque difformibus, superne rotundatis v. oblique conicis, inferne subrotundis vel conicis, ad septum paullo constrictis, 16-21 × 30-40, medio 19 × 35; pedicello ruguloso, conico, fragili, 30-60 µ. longo. 1225

Hab. in foliis Brodiææ capitatæ, Sierra Morena, San Matteo County Californiæ (Thompson).

297. **Puccinia grumosa** Syd. et Holw. in Syd. Mon. Ured. I (1903), p. 641, tab. XXXV, fig. 479. — Æcidiis plerumque hypophyllis, maculis pallidis irregularibus sæpe obsoletis insidentibus, plerumque paucis in greges irregulares dispositis, subinde solitariis, cupulatis, margine albido, inciso; æcidiosporis globosis, subglobosis v. angulatis, verruculosis, hyalino-flavescentibus, 19-27 μ. diam.; soris uredosporiferis amphigenis, sine maculis, sparsis, rotundatis v. oblongis, minutis, epidermide diutius tectis, dein ea medio fissa, cinctis, dilute brunneis; uredosporis globosis vel subglobosis, subtilissime verruculosis, brunneolis, 20-30 μ. diam., episporio tenui; soris teleutosporiferis amphigenis, maculis nullis vel vix distinctis insidentibus, sparsis, minutis, rotundatis v. oblongis, ca. 0,5 mm. diam., epidermide cinerea, diutius tectis, dein, ea medio fissa, cinctis vel semitectis, pulverulentis, atris; teleutosporis ellipsoideo-oblongis v. ovato-oblongis vel subinde subclavatis, apice rotundatis, rarius leniter truncatis, non incrassatis, medio valde constrictis, basi plerumque rotundatis, rarius attenuatis, subtiliter punctato-verruculosis, intus grumosis, castaneo-brunneis, 33-48 × 20-30; pedicello subhyalino, crassiusculo, fragili, usque 55 μ. longo. 1226

Hab. in foliis Zygadeni elegantis, Bauff in Alberta, Canada, Amer. bor. (Holway).

298. **Puccinia melanopsis** Syd. Mon. Ured. (1903) p. 600, tab. XXXIV fig. 459. — Soris teleutosporiferis amphigenis, elongatis, 2-5 mm. longis, 1-2 mm. latis, compactis, nitidis, atris; teleutosporis oblongo-clavatis, apice plerumque acutiusculis, 6-8 μ. incrassatis, medio vix vel leniter constrictis, deorsum attenuatis, levibus, flavo-brunneis, 43-70 × 13-16, raro usque 21 μ. latis; pedicello apice leniter flavescente, tenui, persistenti, usque 95 μ. longo; paraphysibus brunneis. 1227

Hab. in foliis vivis Iridis Sisyrinchii, in desertis ad Erbil Assyriæ (Bornmüller).

299. **Puccinia dehiscens** Syd. Mon. Ured. I (1903) p. 597, tab. XXXIII, fig. 457. — Soris uredosporiferis amphigenis, sparsis vel hinc inde irregulariter aggregatis, minutis, oblongis vel sublinearibus, epidermide diu tectis, tandem, ea medio longitudinaliter fissa, cinctis v. semitectis, flavo-brunneis; uredosporis globosis, subglobosis vel late ellipsoideis, verruculosis, flavo-brunneolis, 19-27 μ. diam; soris teleutosporiferis amphigenis, sparsis vel hinc inde ir- 1228

regulariter aggregatis, oblongis v. sublinearibus, ca. 0,5–1,5 mm. longis, epidermide longitudinaliter v. rimose dehiscente diu tectis v. semivelatis, pulverulento-compactiusculis, atro-brunneis; teleutosporis oblongis v. clavatis, apice rotundatis, truncatis v. longe conico-attenuatis, valde incrassatis, 8-16 μ., medio constrictis, basi attenuatis, levibus, dilute brunneis, 40-65 × 14–21; pedicello flavido, persistenti, crasso, dimidium sporæ æquante.

Hab. in foliis vivis Aristeæ spec. in monte Muizenberg Africæ austr. (H. Bolus).

300. **Puccinia Dieramæ** Syd. Mon. Ured. I (1903), p. 597, tab. XXXIV, fig. 458. — Soris uredosporiferis amphigenis, sparsis vel hinc inde paucis aggregatis, minutis, oblongis vel oblongo-linearibus, epidermide diu tectis, flavo-ochraceis; uredosporis globosis, subglobosis v. sæpius ellipsoideis, subtiliter echinulato-verruculosis, flavo-brunneis, 24-32 × 16-25; soris teleutosporiferis amphigenis, sparsis v. hinc inde paucis irregulariter v. subseriatim aggregatis, oblongis vel oblongo-linearibus, 0,5–1 mm. long., epidermide tandem longitudinaliter fissa diu tectis, atro-brunneis vel atris; teleutosporis oblongo-clavatis v. clavatis, apice plerumque conico-angustatis, sæpe oblique attenuatis, levibus, brunneis, 42–72 × 14–21; pedicello flavo-brunneolo, peristenti, crassiusculo, sporam æquante. 1229

Hab. in foliis vivis Dieramæ ensifoliæ in Capite Bonæ Spei Africæ austr. (Ecklon et Zeyher).

301. **Puccinia Asparagi-lucidi** Diet. in Bot. Jahrb. 1903, pag. 625. — Soris amphigenis et caulicolis, minutis, sparsis; uredosporiferis epidermide castanea diu tectis; uredosporis ellipsoideis, 22-28 × 19-23, flavo-brunneis, echinulatis; soris teleutosporiferis epidermide tectis, nigris, paraphysibus arcuatis pallidis clausis; teleutosporis fusiformibus plerumque curvatis, apice attenuatis et sæpe in rostrum dilutius protractis, truncatis vel rotundatis, ad septum modice constrictis, basi plerumque attenuatis, episporio levi castaneo, apice incrassato indutis, 48-62 × 11-16, pedicello mediocri, usque 25 μ. longo suffultis. 1230

Hab. in foliis caulibusque Asparagi lucidi, Tokyo Japoniæ (Kusano).

302. **Puccinia Cooperiæ** Long in Bull. Torr. Bot. Club. 1902, p. 110, fig. 1, Syd. Mon. Ured. I, 1903, p. 604. — Æcidiis amphigenis, in greges ca. 3–6 mm. longos et 1–3 mm. latos aggregatis, margine leniter reflexo, lacerato, albido; æcidiosporis angulato-globosis, subtilissime verruculosis v. sublevibus, flavidis, 20-30 μ. diam.; 1231

soris uredosporiferis amphigenis, sine maculis, sparsis, rotundatis vel oblongis, 1-3 mm. longis, epidermide demum longitudinaliter fissa tectis, pulverulentis, flavis; uredosporis globosis, subglobosis v. ellipsoideis, echinulato-verruculosis, aureo-flavis, 16-24 μ. diam. vel 24-30 × 16-24; soris teleutosporiferis amphigenis, sine maculis, rotundatis vel oblongis 0,5-2 mm. longis, epidermide cinerea diu tectis; teleutosporis variabilibus, oblongis, oblongo-clavatis vel cuneatis, apice rotundatis vel truncatis, non incrassatis, medio leniter constrictis, basi rotundatis v. cuneato-attenuatis, striis paucis longitudinalibus percursis, brunneis, 32-46 × 18-25; pedicello subhyalino, brevi, crasso.

Hab. in foliis vivis Cooperiæ Drummondii, pedunculatæ, Austin, Texas, Amer. bor. (Long).

303. **Puccinia Alstroemeriæ** Syd. Monogr. Ured. I (1903), p. 603. — 1232
Soris teleutosporiferis amphigenis, irregularibus, confluentibus magnis, usque 1 cm. longis, epidermide plumbea semper tectis, compactis; uredosporis immixtis globosis vel subglobosis, subtiliter echinulatis, flavidis 21-27 μ. diam.; teleutosporis cuneato-clavatis, apice plerumque truncatis, rarius rotundatis, parum incrassatis, ca. 4 μ. medio leniter constrictis, basi plerumque attenuatis, levibus, brunneis, apice obscurioribus, 38-48 × 16-24; pedicello brunneolo, crassiusculo dimidium sporæ æquante.

Hab. in foliis vivis Alstroemeriæ revolutæ, Cordillera de St. Fernando, Chile (Meyen).

304. **Puccinia Hæmodori** P. Henn. F. Australiæ occid. I in Hedw. 1233
1901, p. (96). — Syll. XVI, p. 1119 (nomen). — Soris amphigenis, oblonge pulvinatis, erumpentibus, epidermide fissa velatis, atris 1-2 mm. longis; uredosporis subglobosis v. ellipsoideis, castaneis, levibus 18-22 × 16-19; mesosporis subfusoideis v. ovoideis, subclavatis, apice gibboso-apiculatis, subobtusis vel 2-cornutis, brunneis, 20-35 × 15-18, pedicello ca. 30 × 5-7 hyalino fuscidulo; teleutosporis oblonge clavatis v. fusoideis, apice incrassatis, obtuse rotundatis vel apiculatis, 1-septatis, paullo constrictis, 36-42 × 18-20, episporio castaneo, levi; pedicello hyalino-fuscidulo ca. 40 × 5-7.

Hab. in foliis vivis Hæmodori, Perth Australiæ occid. (Diels).

305. **Puccinia Cannæ** P. Henn. Fungi S. Paulenses I, in Hedw. 1234
1902, p. 105. — Maculis fuscidulis, minutis; soris uredosporiferis (*Uredo Cannæ* Wint. — Syll. VII, p. 843) amphigenis, plerumque hypophyllis, gregarie sparsis, totam superficiem occupantibus, minutis, rotundatis, 0,3 mm. diam., pallide flavis; uredosporis sub-

globosis, ellipsoideis v. oblonge ovoideis, subhyalinis, 20-35 × 16-22, echinulatis; soris teleutosporiferis amphigenis sparsis, diutius tectis, dein erumpentibus, atro-brunneis, subpulverulentis, 0,3 μ. diam.; teleutosporis longe clavatis, apice plus minus incrassatis, obtuse rotundatis, applanatis vel varie apiculatis, flavo-brunneis, medio 1-septatis vix constrictis, 35-60 × 13-18; pedicello cuneato, fuscescente, 10-20 × 4-6.

Hab. in foliis Cannæ spec., in horto botanico, S. Paulo Brasiliæ.

306. **Puccinia citrina** Syd. Mon. Ur. I (1903) p. 634, t. XXXVI, f. 483. 1235
— Soris uredosporiferis amphigenis, maculis nullis v. vix distinctis insidentibus, sæpius dense sparsis, subinde foliorum superficiem æque obtegentibus vel in greges dispositis vel circinatis, minutis, punctiformibus, flavo-brunneis; uredosporis ellipsoideis, remote et valide aculeatis, citrinis, 35-60 × 27-35, episporio usque 5 μ. crasso, apice non vel vix incrassato; soris teleutosporiferis hypophyllis, æque sparsis vel gregariis vel circinatim dispositis, rotundatis, ca. 1 mm. diam., epidermide fissa cinctis, compactis, atro-brunneis; teleutosporis oblongis, apice rotundatis, incrassatis, usque 8 μ., medio leniter constrictis, basi rotundatis, levibus, obscure citrinis, 40-58 × 19-25; pedicello concolori, persistenti, usque 95 μ. longo, 18 μ. crasso.

Hab. in foliis vivis Smilacis Gaudichaudianæ in regione Sinarum (Hillebrand).

307. **Puccinia Henryana** Syd. Mon. Ured. I (1903) p. 633, tab. XXXV, 1236
fig. 482. — Soris teleutosporiferis hypophyllis, maculis indeterminatis rufo- vel obscuro-brunneis insidentibus, sparsis vel paucis aggregatis vel interdum circinatis, rotundatis, hemisphæricis, ca. 1 mm. diam., compactiusculis, epidermide rupta subinde cinctis, obscure brunneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis vel acutiusculis, valde incrassatis, 10-16 μ., medio constrictis, basi plerumque attenuatis, levibus, dilute brunneis, 38-56 × 14-19; pedicello hyalino persistenti, sporam æquante.

Hab. in foliis vivis Smilacis menispermoidis pr. Huphe Sinarum (A. Henry).

308. **Puccinia Smilacis-Chinæ** P. Henn. in Hedw. 1901, p. (125). — 1237
Maculis fuscidulis; soris hypophyllis, sparsis, pulvinato-applanatis, subceraceis, firmis, ochraceis, dein cinnamomeis usque ad 1 mm. diam.; uredosporis interdum intermixtis, ellipsoideis v. subglobosis, subcastaneis, 20-24 × 20-22, subverrucosis; teleutosporis oblonge el-

lipsoideis v. subclavatis, apice obtuse rotundatis haud incrassatis, medio septatis plus minus constrictis, primo flavidis, dein brunneis, intus granulatis, 30-60 × 18-30; pedicello clavato v. subfusoideo, gelatinoso-inflato, longitudinaliter sulcato, hyalino, usque ad 100 μ. longo, 15-30 μ. crasso.

Hab. in foliis Smilacis Chinæ, prope Kamomura in prov. Tosa Japoniæ.

309. **Puccinia Beschiana** R. Maire in Bull. Soc. bot. de France 1901, tom. XLVIII, p. CCXVII, tab. 13, f. IV (Etym. a mycophilo nanceiensi Besch). — Soris uredosporiferis in foliorum vivorum maculis atro-purpureis insidentibus, oblongis vel ellipticis, ochraceo-fulvis, minutis, diu epidermide tectis, sparsis v. irregulariter congregatis, aparaphysatis; uredosporis subglobosis vel ovoideis, 18-26 × 15-24, episporio tenui, dilute brunneo, aculeato, duobus, rarius tribus poris prædito, contentu hyalino; soris teleutosporiferis in foliis emortuis sparsis, atro-brunneis, ovatis vel ellipticis, 0,5-1 mm. long., mox nudis, firmulis, aparaphysatis; mesosporis nullis; teleutosporis ad septum constrictulis, clavatis v. oblongo-clavatis, 40-53 × 13-19, episporio undique crassiusculo, apice autem 11-15 μ. incrassato nec non concentrice striato, dilute ochraceo-brunneo, levissimo; cellulæ superioris poro apicali, cellulæ autem inferioris juxta septum posito; pedicello plus minusve deciduo brunneolo, usque 30 μ. longo. 1238

Hab. in foliis Luzulæ Forsteri, in pinetis Valdoniello Corsicæ.

310. **Puccinia cyrnæa** R. Main. in Bull. Soc. Bot. de France 1901, tom. XLVII, p. CCXVI cum icone (Etym. *Cyrnos* nomen græcum Corsicæ), Soris teleutosporiferis subcutaneis, rimis plurimis dehiscentibus, illis *P. cancellatæ* fere similibus, sed minus elongatis, minus bullatis, firmulis, atro-brunneis; uredosporis nullis intermixtis; teleutosporis clavatis, oblongis v. fusoideis, 37-72 × 19-26, brunneis, levibus, apice valde incrassatis, usque 11 μ., rotundatis acuminatisve, basi in pedicellum validum, usque ad 80 μ. longum, brunneolum, persistentem, 6-11 μ. cr., attenuatis; mesosporis nonnullis intermixtis, forma et dimensione variis, plerumque ovoideis, clavatis vel rhomboideis, apice valde incrassatis. 1239

Hab. in culmis foliisque vivis Junci maritimi, in paludosis maritimis, in sinu Figari Corsicæ.

311. **Puccinia riparia** Holway, Journ. of Mycol. 1904, pag. 163. — Pycnidiis epiphyllis, paucissimis, e flavo fuscescentibus; maculis 1240

flavis non incrassatis; æcidiis hypophyllis sparsis, 1-6 in quoque soro (v. in cultura late confluentibus), margine recurvo in 2-8-lacinias fisso; æcidiosporis globosis, hyalinis, minute asperulis, 22-26 plerumque 22 μ. diam., tenue tunicatis; uredosoris hypophyllis, oblongis, brunneis; uredosporis globoso-ellipsoideis, 26-33 × 22-26, spinulis 3 μ. alt. conspersis, brunneis, minute rugulosis; pedicellis hyalinis 35-40 μ. long.; teleutosoris hypophyllis oblongis, mox erumpentibus; teleutosporis oblongis v. oblongo-clavatis, medio constricto-septatis, 30-40 × 13-15, apice 7-11 μ. incrassato; pedicello colorato, sporam æquante; cellula super. rotundata rarius acutata v. truncata, tunica tenui.

Hab. st. teleut. et uredosp. in foliis Caricis ripariæ, pycnid. et æcid. in fol. Ribis floridi, Decorah Jowa Amer. bor.

312. **Puccinia Ægidii-Leucanthemi** Ed. Fisch. in Bull. de l'Herb. Boiss. VI, 1898, pag. 11, Syd. Mon. Ured. I, 1903, p. 663, *Æcidium Leucanthemi* D. C. — Syll. VII, p. 803 — *Cœoma Leucanthematum* Link Spec. II, p. 51. — Æcidiis hypophyllis, maculis orbicularibus v. irregularibus flavidis v. purpureis v. rufo-purpureis 3-12 mm. diam. insidentibus, in greges orbiculares v. irregulares dispositis v. sine ordine distributis, cupulatis, margine late recurvato, flavido, inciso; æcidiosporis angulato-globosis, verruculosis, aurantiacis, 14-20 μ. diam.; soris uredosporiferis hypophyllis, sparsis, minutissimis, vix 250 μ. longis, brunneis; uredosporis globosis, subglobosis vel ovatis, echinulatis dilute brunneis, 20-26 × 18-22; soris teleutosporiferis hypophyllis, sparsis, minutissimis, 250 μ. diam., epidermide diutius tectis, atro-brunneis; teleutosporis clavatis, apice rotundatis v. sæpius conico-attenuatis, valde incrassatis, 14-17 μ., medio leniter constrictis, basi attenuatis, levibus, brunneis, apice saturatioribus, 44-50 × 18-21; pedicello subhyalino, dimidium sporæ æquante, persistenti. 1241

Hab. æcidia in foliis vivis Chrysanthemi Leucanthemi, uredo et teleutosporæ in foliis vivis Caricis montanæ, in Germania, Austria, Hungaria, Helvetia, Italia, Fennia, Rossia.

313. **Puccinia nonensis** P. Henn. Pilze Japon. II, p. 151, Hedw. 1904. — Maculis fuscis vel atris, rotundatis; soris rotundatis planis, amphigenis gregariis, atris; teleutosporis elongato-clavatis, apice valde incrassatis usque ad 15 μ., applanatis v. rotundatis, interdum crenatis v. conicis, brunneo-castaneis, medio 1-septatis constrictis, intus granulatis, episporio tenui vix 1 μ. crasso, brunneo, 35-48 × 14-18 μ.; pedicello ca. 20 × 4-6 μ. hyalino-flavidulo. 1242

Hab. in foliis Caricis spec. in mt. None, Tosa Japoniæ, (T. Yoshinaga). — Ab affini *P. ludibunda* teleutosporis apice valide incrassatis præcipue dignoscitur.

314. **Puccinia albi-peridia** Arth. Journ. Mycol. 1902, p. 53, Syd. Mon. Ured. I, p. 652. — Pycnidiis amphigenis; æcidiis hypophyllis, maculis orbicularibus vel suborbicularibus, flavescentibus insidentibus, in greges rotundatos circinatim dispositis, cupulatis, margine albo reflexo inciso, æcidiosporis angulato-globosis, levibus, flavescentibus, 15-20 μ. diam. episporio tenui; soris uredosporiferis hypophyllis, minutis, rotundatis vel oblongis, mox nudis; uredosporis oblongis, minutis, echinulatis; soris teleutosporiferis hypophyllis, rotundatis v. oblongis, pulvinatis, obscure brunneis; teleutosporis oblongo-cuneatis, apice rotundatis, valde incrassatis, medio non v. vix constrictis, 32-45 × 17-24; pedicello colorato, sporam æquante vel ea breviore. 1243

Hab. æcidia in foliis Caricis Cynosbati, gracilis, uredosporæ et teleutosporæ in foliis vivis Caricis pubescentis, in Amer. bor.

315. **Puccinia Peckii** (De Toni) Kellerm. in Journ. of Mycol. 1902, pag. 20 et p. 52 et 1903, f. 11, Sydow. Mon. Ured. I, 1903, pag. 671, *Æcidium Œnotheræ* Peck et *Æcid. Peckii* De Toni. — Syll. VII, p. 790. — Æcidiis hypophyllis, maculis subrotundatis plerumque purpureis v. flavo-purpureis, usque $^3/_4$ cm. diam., insidentibus, in greges maculam explentes laxe dispositis, cupulatis, margine erecto vel vix recurvato, inciso, flavidis; æcidiosporis subglobosis vel angulato-globosis, punctatis, dilute flavidis, 14–18 μ. diam.; soris uredosporiferis hypophyllis, maculis indeterminatis, flavo-brunneis insidentibus, sparsis vel seriatim dispositis, oblongis, hinc inde confluentibus et usque 3 mm. longis, epidermide diutius tectis, ferrugineo-fuscis; uredosporis globosis subglobosis v. ellipsoideis, echinulatis, dilute brunneis. 24–32 × 19–26; soris teleutosporiferis hypophyllis, maculis indeterminatis, brunneis insidentibus, sparsis, subinde confluentibus, plerumque rotundatis vel ellipticis, usque $^3/_4$ mm. diam., compactis, epidermide fissa cinctis, atris; teleutosporis clavatis, apice rotundatis vel conico-attenuatis, valde incrassatis, usque 14 μ. et obscurioribus, medio non vel vix constrictis, basi attenuatis, levibus, dilute brunneis, 38–56 × 11–16; pedicello flavido, persistenti, usque 55 μ. longo. 1244

Hab æcidia in foliis vivis Œnotheræ biennis, uredosporæ

et teleutosporæ in foliis Caricis trichocarpæ, stipatæ, in Amer. bor.

316. **Puccinia Opizii** Bubák in Centralbl. f. Bakter. u. Parass. 1902, IX, p. 925, *Æcidium lactucinum* Lagh. et Lindr. Act. pro Fauna et Fl. Fenn. 1901, XX, n. 9, p. 19, cum icone, *Æcid. Opizii* Bubák l. c.: cfr. Syd. Mon. Ured. vol. I, pag. 659. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis purpurascentibus vel roseolis, zona flavescenti plus minusve expansa circundatis, 0,5-1,5 cm. latis insidentibus, in greges maculam explentes dispositis, cupulatis vel breviter cylindraceis, margine revoluto lacerato albo; æcidiosporis globosis, subglobosis vel ellipsoideis, verruculosis, aurantiacis, 16-25 × 14-22; soris uredosporiferis hypophyllis, maculis minutis flavescentibus insidentibus, sparsis, minutis, ovatis vel oblongis, epidermide primitus tectis, demum nudis, pulverulentis, brunneis; uredosporis globosis, subglobosis, ellipsoideis vel oblongo-ellipsoideis, remote echinulatis, brunneis, 18-33 × 17-22, poris germinationis duobus præditis; soris teleutosporiferis hypophyllis v. culmicolis, sparsis v. hinc inde aggregatis, folia sæpeque omnino tegentibus, minutis, ovatis v. oblongis, diu tectis, pulvinatis atris; teleutosporis clavatis vel oblongo-clavatis apice rotundatis, truncatis vel conico-attenuatis, valde incrassatis, 10-18 μ. obscurioribusque, medio leniter constrictis, basi in pedicellum attenuatis, levibus, flavo-brunneis, 35-60 × 13-24; pedicello hyalino, persistenti, sporam æquante. 1245

Hab. æcidia in foliis vivis Lactucæ muralis, Scariolæ, uredo et teleutosporæ in foliis caulibusque vivis Caricis muricatæ, in Germania, Austria, Suecia, Fennia.

317. **Puccinia Caricis** (Schum.) Rab. — Syll. VII, p. 626. — Quoad formas heterœciâ distinguendas cfr. Klebahn ap. Syd. Monogr. Ured. I (1903), p. 652.

318. **Puccinia Caricis-Asteris** Arthur, Journ. of Mycol. 1902, p. 54, Syd. Mon. Ured. I, 1903, p. 665, *Æcidium Asterum* Schw. — Syll. VII, pag. 802, p. p. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis vel subrotundatis flavis vel flavo-purpureis insidentibus, in greges circinatim dispositis vel irregulariter consociatis, cupulatis v. breviter cylindraceis, margine recurvato profunde laceriato; æcidiosporis angulato-globosis, minute verruculosis, flavescentibus, 12-18 μ. diam., episporio tenui; soris uredosporiferis, hypophyllis, oblongis; uredosporis ovatis v. oblongis, echinulatis 18-22 × 12-16, episporio tenui, poris germinationis pau- 1246

cis sparsis instructis; soris teleutosporiferis hypophyllis, oblongis v. oblongo-linearibus, mox nudis, epidermide rupta cinctis, obscure brunneis; teleutosporis oblongis vel oblongo-clavatis, apice rotundatis, valde incrassatis, 58-56 × 16-22; pedicello colorato dimidium sporæ æquante.

Hab. æcidia in foliis vivis Asteris cordifolii, paniculati, salicifolii, spathulati, uredo- et teleutosporæ in foliis vivis Caricis fœneæ, Amer bor.

319. **Puccinia Caricis-Erigerontis** Arth. Journ. of Myc. 1902 p. 53, Syd. Mon. Ured. I, 1903, p. 664, tab. XXXVII, fig. 489, *Æcidium erigeronatum* Schw. — Syll. VII, p. 801. — Pycnidiis epiphyllis; æcidiis hypophyllis, maculis rotundatis vel irregularibus, magnis ca. 0,5-2 cm. latis vel subinde totum folium occupantibus, flavis v. purpureo-flavidis insidentibus, in greges rotundatos usque 1,5 cm. diam. dispositis, minutis, cupulatis, margine albo inciso reflexo; æcidiosporis angulato-globosis, subtiliter verruculosis, flavescentibus, 13-20 μ. diam.; soris uredosporiferis hypophyllis, sparsis, minutis, oblongis, demum nudis dilute brunneis; uredosporis subglobosis v. ovatis, echinulatis, dilute brunneis, 16-22 × 13-20, poris germinationis 3-4-instructis; soris teleutosporiferis hypophyllis, sparsis, minutis, rotundatis v. oblongis, pulvinatis, epidermide fissa cinctis, atro-bruneis; teleutosporis clavatis, apice rotundatis vel truncatis, incrassatis usque 8 μ. et obscurioribus, medio leniter constrictis, basi attenuatis, levibus, dilute brunneis, 35-50 × 12-20; pedicello flavido, persistenti, usque 35 μ. longo. 1247

Hab. æcidia in foliis vivis Erigerontis annui, bellidifolii, canadensis, philadelphici, strigosi, uredo- et teleutosporæ in foliis vivis Caricis festucaceæ, Amer. bor.

320. **Puccinia Caricis-montanæ** Ed. Fischer in Hedw. 1903, p. (136), *Æcidium Centaureæ-Scabiosæ* P. Magn. — Syll. IX, p. 324: cfr. Sydow Mon. Ured. I, p. 662. — Soris longitudinaliter dispositis, elongatis 1 mm. long. 250-350 μ. cr., mox nudis; uredosporis globosis v. ellipsoideis, 18-21 μ. diam., membrana brunnea, minutissime hyalino-verruculosa; poris germinationis duobus; teleutosporis piriformibus apice rotundatis, interdum inæquilateris, rarius papillatis, deorsum sensim in stipitem attenuatis, leviter constrictis, 42-52 × 18-24; membrana levi, brunnea, apice valde incrassata usque 10-14 μ., poro germinativo in cellula superiori subapicali, in inferiori prope septum sito; stipite hyalino, teleutosporam subæquante. 1248

Hab. in foliis Centaureæ montanæ in Helvetia.

321. **Puccinia Caricis-Solidaginis** Arth. in Bot. Gaz. XXXV, 1903, p. 21, Syd. Mon. Ured. I, 1903, pag. 666. *Æcidium Solidaginis* Schw. — Pycnidiis amphigenis; æcidiis hypophyllis, maculis orbicularibus v. suborbicularibus flavis, 0,5-1 cm. diam., insidentibus, in greges maculam sæpe explentes dispositis, cupulatis vel breviter cylindraceis, margine recurvato, profundo lacerato; æcidiosporis angulato-globosis, minute verruculosis, flavescentibus, 14-20 µ. diam.; soris uredosporis et teleutosporis iis *Pucc. Caricis-Asteris* et *Pucc. Caricis-Erigerontis* affinis. 1249

Hab. æcidia in foliis vivis Solidaginis bicoloris, cæsiæ, canadensis, lanceolatæ, latifoliæ, rigidæ, serotinæ, ulmifoliæ, uredo- et teleutosporæ in foliis vivis Caricis Jamesii, stipatæ in Amer bor.

322. **Puccinia Yokoguræ** P. Henn. in Hedw. 1903, p. (107). — Maculis flavidulis v. fuscidulis explanatis; uredosporis sparsis, hypophyllis, minutis, ferrugineis; uredosporis subglobosis, ovoideis vel ellipsoideis, brunneis, verrucosis, 20-22 × 16-18; teleutosporis hypophyllis, sparsis v. gregariis, minutis, rotundato-pulvinatis, atro-castaneis; teleutosporis clavatis vel subfusoideis, apice obtuse rotundatis v. apiculatis, usque ad 10 µ. incrassatis, medio 1-septatis, leniter constrictis, episporio castaneo, levi, 20-40 × 15-20; pedicello persistente, hyalino-fuscidulo ca. 6 µ. crasso. 1250

Hab. in foliis Caricis spec., Mt. Yokogura, Tosa Japoniæ (Yoshinaga).

323. **Puccinia karelica** Tranzsch. Centralbl. fr. Bakter. u. Parass. 1903, II, Abt., Bd. XI, p. 106. — (Absque diagnosi). 1251

Hab. æcidium in foliis Trientalis europææ, II et III in fol. Caricis limosæ, in Rossia.

324. **Puccinia Dulichii** Syd. Monogr. Ured. I, p. 684, t. XXXVIII, fig. 507. — Soris uredosporiferis hypophyllis, sine maculis, sparsis vel interdum aggregatis, minutis, rotundatis v. oblongis, brunneis; uredosporis subglobosis vel ellipsoideis, remote echinulatis, dilute brunneis, 16-19 × 11-16; soris teleutosporiferis hypophyllis, sine maculis, sparsis vel seriatim dispositis, oblongis v. linearibus, 0,5-1,5 mm. longis, epidermide fissa cinctis, pulvinatis, atris; teleutosporis clavatis, apice rotundatis, valde incrassatis, 8-14 µ., medio constrictis, basi cuneato-attenuatis, levibus, dilute brunneis, apice saturatius coloratis, 38-60 × 15-19; pedicello brunneolo, persistenti, breviusculo. 1252

Hab. in foliis vivis Dulichii spathacei in America bor. (Farlow, Seymour).

325. **Puccinia Romagnoliana** Maire et Sacc. in Ann. Mycol. 1903, n. 3. — Soris utriusque formæ foliicolis vel culmicolis, semper epidermide tectis, ellipticis vel linearibus, sparsis vel gregariis, sæpius confluentibus, longitudine rarissime 3 mm. superantibus; soris uredosporiferis bullatis, pallide cinnamomeis, aparaphysatis; uredosporis ovoideis vel interdum subglobosis, 21-28 × 16-21; episporio brunneo, aculeolato, duobus poris germinationis prædito; soris teleutosporiferis bullatis, fusco-atris, paraphysatis; teleutosporis inter paraphyses nidulantibus, breviter pedicellatis v. subsessilibus, plerumque oblongis vel subclavatis, medio haud vel parum constrictis, episporio subtenui, levi, dilute brunneo, nec poris germinationis præditis, juvenilibus apice apiculo incrassato sæpe e pressione lateraliter evoluto auctis, adultis autem plus minusve rotundatis, paullo incrassatis, 40-60 × 13-20. 1253

Hab. in foliis culmisque Cyperi longi, Liamone et prope Ajaccio in paludosis Corsicæ.

326. **Puccinia hydnoidea** (B. et C.) Arthur, Journ. of Mycol. 1904, vol. X, p. 19, *Æcidium hydnoideum* B. et C. — Syll. VII, p. 790. — Pycnidiis amphigenis in parvulos greges in maculis latis luteis insidentibus, punctiformibus; æcidiis hypophyllis; pseudoperidiis brevibus, cylindricis, pallidis, margine paullo recurvatis, minute laceratis; æcidiosporis globosis vel oblongo-globosis, 14-19 × 11-15; episporio 1 μ. crasso, luteolo minute verrucoso; soris uredosporiferis præcipue epiphyllis, oblongis, subimmersis, pulverulentis, fuscis; uredosporis globosis vel obovato-globosis, 20-28 × 18-21; episporio 1 μ. crasso, brunneo, valde echinulato; poris germinationis 4 vel ultra; soris teleutosporiferis, præcipue hypophyllis et caulicolis, minimis, numerosis, oblongis, epidermide tectis; teleutosporis lineari-oblongis, 30-50 × 13-18 superne truncatis, inferne obtusis vel subconicis, ad septum non constrictis; episporio levi, pallide brunneo, 1-1,5 μ. cr., apice 4-7 μ. cr.; pedicello brevissimo, pallide colorato; paraphysibus paucis vel nullis. 1254

Hab. in foliis Dircæ palustris (*Æcidium*); in foliis Bromi ciliati (*Puccinia*) in America bor.

327. **Puccinia Mühlenbergiæ** Arth. et Holw. Bull. Nat. Hist. Univ. Jowa, 1902, p. 317, Syd. Monogr. Ured. p. 765, *Æcidium hibisciatum* Schw. — Syll. VII, p. 781, *Pucc. hibisciatum* Kellerm. in Journ. of Mycol. 1903, vol. 9, p. 110. — Æcidiis hypophyllis, 1255

maculis orbicularibus brunneis, margine flavis, magnis, 0,5–1,5 cm. diam., insidentibus, in greges totam maculam explentes, plerumque dense confertis, subinde irregulariter circinatis, breviter cylindraceis, margine recurvato, lacerato; æcidiosporis globosis, angulato-globosis v. late ellipsoideis, punctatis flavidis, 20-26 μ. diam.; soris uredosporiferis hypophyllis vel hinc inde amphigenis, minutis, oblongis, mox nudis, pulverulentis, dilute brunneis; uredosporis globosis v. subglobosis, dense et distincte echinulatis, flavo-brunneis, 22-30 μ. diam., episporio tenui, poris germinationis circ. 5 sparsis instructis; soris teleutosporiferis plerumque hypophyllis, dein sparsis, subrotundatis, oblongis vel lineari-oblongis, 0,5–1,5 mm. longis, subinde confluentibus, atro-brunneis; teleutosporis ellipsoideis v. ellipsoideo-oblongis, apice rotundatis, leniter 4–6 μ. incrassatis, medio non vel parum constrictis, basi rotundatis vel leniter attenuatis, levibus, brunneis, 30-40 × 18-27, episporio mediocri; pedicello brunneolo, firmo crassiusculo, sporam æquante vel ea paullo longiore, subinde oblique inserto.

Hab. æcidia in foliis vivis Hibisci moschati, uredo- et teleutosporæ in foliis vivis Mühlenbergiæ diffusæ, mexicanæ, racemosæ (= glomeratæ) in Amer. bor.

328. **Puccinia Zoysiæ** Diet. in Bot. Jahrb. 1902, pag. 48. — Soris 1256
hypophyllis, mediocribus, oblongis; uredosporis ellipsoideis v. obovatis 17–21 × 15–17, episporio hyalino vel flavescenti subcrasso verruculoso donatis; soris teleutosporiferis atro-fuscis, firmis, nudis, pulvinatis; teleutosporis ellipsoideis vel oblongis, utrinque rotundatis, rarius apice conoideis vel truncatis, ad septum leniter vel non constrictis, 28–40 × 16–25; episporio levi, castaneo, apice modice incrassato vestitis, pedicello hyalino, usque 80 μ. longo suffultis.

Hab. in foliis Zoysiæ pungentis, Tokyo Japoniæ (Kusano).

329. **Puccinia vilis** Arthur in Bull. Torr. Bot. Cl. 1901, p. 663. — 1257
Soris amphigenis, oblongis vel linearibus, in maculis brunneis insidentibus, subepidermicis, brunneis (ured.) et brunneo-nigris (teleut.); uredosporis ellipticis, ovatis v. globosis, 18-26 × 22-30, brunneo-luteolis, episporio 3–4 μ. cr., echinulato-verruculoso donatis; teleutosporis ellipticis vel obovatis, 19–23 × 33–45, apice obtusis, brunneis, basi rotundatis v. angustatis; pedicello concolori, firmo sporæ subæquilongo.

Hab. in foliis Panici Crus-Galli prov. Jowa, Amer. bor.

330. **Puccinia Triticorum** Speg. Myc. argent. ser. II, 1902, p. 65. — 1258

Maculis nullis; acervulis epidermide semper tectis, linearibus, duris, fuscis; soris depressis, subsclerotiaceis, sæpe confluentibus 0,4-1,2-5 mm. long. 0,4-0,5 mm. lat., extus fuscis, intus atris; teleutosporis e clavulato bacillaribus, pallide ferrugineis, 40-50 × 11-18, loculo supero ovato v. subcuboideo, 15-20 × 16-18, subdenticulato crasseque tunicato, infero elongato cuneato, 25-30 × 11-15, pedicello persistente 10-15 × 6-8 subhyalino ornatis.

Hab. ad folia Triticorum cultorum, prope S. Juan in Argentina. — Species habitu externo *P. coronatæ* Corda et *Pucc. Brachypodii* Otth simillima, sed notis internis longo recedens.

331. **Puccinia triticina** Erikss. in Ann. Sc. Nat. 1899, p. 270, Syd. Monogr. Uredin. I, p. 716, *Uredo triticina* Erikss. l. c. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, oblongis, mediocribus, ferrugineis; uredosporis globosis v. subglobosis, echinulatis, flavis, 20-27 μ. diam.; soris teleutosporiferis hypophyllis v. culmicolis, sparsis, in culmo sæpe seriatim dispositis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis, sæpe obtuse et oblique angustatis, vix v. parum incrassatis, medio leniter constrictis, basi attenuatis, levibus, brunneis, 30-45 × 12-20; pedicello brevi; paraphysibus brunneolis numerosis. 1259

Hab. in foliis culmisque Tritici compacti, dicocci, Speltæ, vulgaris in tota Europa et Amer. bor.

332. **Puccinia Triseti** Erikss. in Ann. Sc. Nat. 1899, p. 277, Syd. Monogr. Ured. I, p. 716, *Uredo Triseti* Erikss. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, minutis, punctiformibus, flavo-brunneolis v. flavidis; uredosporis globosis vel subglobosis, echinulatis, flavis, 18-29 μ. diam.; soris teleutosporiferis hypophyllis, rarius evolutis, minutis, punctiformibus, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis vel obtuse et oblique angustatis, leniter incrassatis, medio plerumque leniter constrictis, basi sæpius attenuatis, levibus, brunneis, 32-48 × 16-23; pedicello brevi; paraphysibus brunneolis. 1260

Hab. in foliis Triseti flavescentis in Germania, Italia, Gallia et Suecia.

333. **Puccinia tosta** Arthur in Bull. of the Torr. Bot. Club 1902, pag. 228. — Soris uredosporiferis amphigenis, minutis, brunneo-luteis, cito nudis; uredosporis globosis 20-30 μ. diam.; episporio brunneo-luteolo, exili 1,5 μ. crasso, dense minuteque tuberculatis, poris 6 vel pluribus, sparsis; soris teleutosporiferis amphigenis, 1261

prominentibus, rotundatis vel oblongis, nigro-brunneis, erumpentibus, nudis; teleutosporis globosis vel oblongis, 20-30 × 30-40, utrinque rotundatis, parce constrictis, apice paullo acuminatis 5-10 μ., pedicello crasso, firmo, colorato, sporâ duplo vel triplo longiore donatis.

Hab. in foliis Sporoboli cuspidati, utilis, asperifolii in Amer. bor. — Var. **luxurians** Arthur l. c.: uredosporis paullo latioribus quam in typo, valde tuberculatis fere echinulatis, episporio fere 2 μ. crasso; soris teleutosporiferis elongatis; teleutosporis latioribus, 43-55 × 27-32. In foliis Sporolobi airoidis, Andrews, Oreg., Amer. bor.

334. **Puccinia subandina** Speg. Myc. argent. ser. II, 1902, p. 65. — 1262
Maculis nullis; acervulis orbicularibus 0,5 mm. diam., depressis, subnudis, duriusculis; soris innato-erumpentibus, obscure ferrugineis, sparsis; teleutosporis clavulatis, apice subtruncatis v. obtusissime rotundatis ibique crasse tunicatis, 60 × 14-20, loculo supero obovato 20-25 × 18-20, infero cuneato, 30-35 × 14-16, pallide fulvis, levibus, ad septum leniter constrictis, stipitibus flexuosis, 20-30 × 5-8 hyalinis præditis.

Hab. in foliis vivis Poæ chorizanthæ, secus Carrenleofu in Argentina.

335. **Puccinia simplex** (Koern.) Erikss. et Henn. in Getreideroste 1263
1896, pag. 238, Sydow Mon. Ured. I, pag. 756, *P. graminis* Fuck. var. *simplex* Koern. *P. rubigo-vera* (D. C.) var. *simplex* Auct. — Syll. VII, p. 625. — *P. anomala* Rostr. — Soris uredosporiferis, amphigenis, sparsis, minutis, punctiformibus, flavis; uredosporis subglobosis v. ellipsoideis, echinulatis, flavis, 19-22 μ. diam. v. 22-27 × 15-20; soris teleutosporiferis amphigenis v. sæpe culmicolis, in folio sparsis, minutis, punctiformibus, in culmo majoribus, plerumque oblongis confluentibusque, epidermide tectis, atris; teleutosporis septatis plus minusve evolutis, oblongo-clavatis, apice rotundatis v. oblique conico-attenuatis, 4-8 μ. incrassatis, levibus, brunneis, 40-54 × 15-24; pedicello brunneolo, brevi; mesosporis plerumque numerosissimis, asymmetricis, oblongis vel clavulatis, variabilibus, apice 4-10 μ. incrassatis, 25-45 × 16-24; paraphysibus brunneis, apice incrassatis.

Hab. in foliis culmisque Hordei distichi, secalini, vulgaris, zeocriti, in tota Europa et Asia minori.

336. **Puccinia rufipes** Diet. in Bot. Jahrb. 1902, pag. 48. — Soris 1264
oblongis vel linearibus, hypophyllis, minus copiose etiam epiphyl-

lis, uredosporiferis ochraceis; uredosporis obovatis vel ellipsoideis, echinulatis, obscure castaneis vel rufis, 25-35 × 18-26, poris 4 æquatorialibus instructis, paraphysibus capitatis pallidis intermixtis; soris teleutosporiferis atris; teleutosporis ellipsoideis, utrinque rotundatis ad septum leniter constrictis, levibus, apice vix incrassatis, 28–33 × 20-23 pedicello longissimo usque 90 μ., intense rufo-brunneo interdum oblique vel lateraliter inserto, firmo suffultis.

Hab. in foliis Imperatæ arundinaceæ var. Koenigii, Tokyo Japoniæ (Kusano).

337. **Puccinia Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 105. — Maculis pallidis v. obsoletis; soris uredosporiferis hypophyllis v. amphigenis, sparse gregariis, punctiformibus, rotundatis diutius tectis, flavidulis; uredosporis subglobosis, ellipsoideis v. ovoideis, 20-30 × 20-24, flavidis, aculeatis; soris teleutosporiferis amphigenis, rotundatis v. oblongis, diutius tectis, fuscis; teleutosporis oblonge ovoideis v. clavatis, apice valde incrassatis, rotundatis, interdum oblique papillatis, medio 1-septatis, haud v. paulo constrictis, flavidis, 30–40 × 15–20, episporio brunneo, levi; pedicello persistente, flavido, usque ad 30 × 4–6. 1265

Hab. in foliis Panici prope S. Paulo Brasiliæ.

338. **Puccinia Panicularіæ** Arth. in Bull. Torr. Bot. Cl. 1901, p. 663. — Soris amphigenis, oblongis, parvulis, subepidermicis; uredosporis subglobosis vel oblongis, pallide luteis, 18-26 × 15-21; episporio minute verruculoso; teleutosporis oblongis, clavatis vel lineariformibus, brunneis, ad septa parce constrictis, 43-70 × 15-19, apice rotundato-obtusis, papillatis, basi angustatis; pedicello brevissimo brunneolo; paraphysibus nullis. 1266

Hab. in foliis Panicularіæ americanæ (= Glyceria grandis), Spirit Lake, Jowa Amer. bor. (J. C. Arthur).

339. **Puccinia Micranthæ** Griff. Bull. Torr. Cl. 1902, pag. 299, Syd. Mon. Ured. I, p. 768, tab. XLI, fig. 536. — Soris teleutosporiferis epiphyllis, sparsis, minutis, rotundatis vel oblongis, atris; uredosporis immixtis globosis v. subglobosis v. ellipsoideis, subtiliter echinulatis, flavis, 15-18 μ. diam.; teleutosporis variabilibus, ovato-ellipsoideis, oblongis vel oblongo-clavulatis, apice sive rotundatis sive longe attenuatis, valde incrassatis, usque 17 μ., medio constrictis, basi rotundatis, rarius attenuatis, levibus, brunneis, 30-50 × 14–25; pedicello hyalino persistenti, usque 90 μ. longo. 1267

Hab. in foliis vivis Oryzopsidis micranthæ, Billings in Montana Amer. bor. (Williams et Griffits).

340. **Puccinia Melicæ** (Erikss.) Syd. Monogr. Ured. I, p. 760, *Pucc.* 1268
coronata f. *Melicæ* Erikss. in Ber. Deutsch. Bot. Gesell. 1894, p. 322. — Soris uredosporiferis hypophyllis, sparsis, minutissimis, rotundatis vel oblongis, pulverulentis, aurantiacis; uredosporis globosis, subglobosis, ellipsoideis v. angulatis, subtilissime echinulatis, flavescentibus, 15-18 ≈ 11-16, paraphysibus nullis; soris teleutosporiferis raro evolutis, hypophyllis, minutissimis, atris; teleutosporis clavatis, apice applanatis, dentibusque acutis instructis, medio non vel parum constrictis, basi attenuatis, levibus, brunneis, 9,5-11 μ. latis, loculo superiore 24-37 μ. longo, inferiore 32-37 μ. longo (sec. Eriksson); pedicello brevi.

Hab. in foliis Melicæ nutantis in Germania, Suecia, Norvegia.

341. **Puccinia kozukensis** Diet. in Bot. Jahrb. 1902, p. 48. — Soris 1269
hypophyllis oblongis vel rotundatis; uredosporis late ellipsoideis, flavescentibus, verruculosis, ca. 24 ≈ 21; soris teleutosporiferis pulvinatis, nudis, atris; teleutosporis obovatis vel oblongis, utrinque rotundatis, rarius basi attenuatis, ad septum leniter constrictis 33-45 ≈ 18-25, episporio levi, castaneo, apice usque 8 μ. incrassato vestitis, pedicello longo, hyalino, firmo instructis.

Hab. in foliis Andropogonis spec. in prov. Kozuké Japoniæ (Kusano).

342. **Puccinia Hookeri** Syd. Monogr. Ured. I, p. 723, tab. XXXIX, 1270
fig. 515. — Soris teleutosporiferis amphigenis, sparsis, rotundatis v. oblongis 0,5-1,5 mm. longis, mox nudis, compactis, obscure brunneis; uredosporis immixtis globosis, subglobosis v. ellipsoideis, verruculosis, flavis, 24-30 ≈ 20-26; episporio crasso, 5-6 μ.; teleutosporis ellipsoideis vel oblongo-ellipsoideis, apice rotundatis vel rarius obtuse conico-attenuatis, valde incrassatis usque 10 μ., medio non v. leniter constrictis, basi rotundatis, levibus, flavo-brunneis, 38-54 ≈ 26-35; pedicello hyalino persistenti, crasso, usque 100 μ. longo.

Hab. in foliis Andropogonis echinulati, Himalaya Indiæ or. (Hooker Fil. et Thomson).

343. **Puccinia holcina** Erikss. in Ann. Sc. Nat. 1899, p. 274, Syd. 1271
Monogr. Ured. I, p. 715, *Uredo holcina* Erikss. l. c. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis v. hinc inde aggregatis, minutis, oblongis, flavo-brunneis; uredosporis globosis v. subglobosis, echinulatis, flavis, 20-28 μ. diam.; soris teleutosporiferis amphigenis, sparsis vel in vaginis lineariter aggregatis,

minutis, epidermide tectis, atris; teleutosporis ellipsoideo-clavatis v. clavatis, apice rotundatis v. obtuse et oblique angustatis, non v. parum incrassatis, medio leniter constrictis, basi plerumque attenuatis, levibus, brunneis, 34–54 × 16–24; pedicello brevi; paraphysibus brunneis, numerosis.

Hab. in foliis culmisque Holci lanati, mollis, in Germania, Austria, Hungaria, Italia, Norvegia, Suecia, ins. Madera.

344. **Puccinia Gymnopogonis** Syd. Monogr. Ured. I, p. 755, tab. XLI, fig. 531. — Soris teleutosporiferis hypophyllis, subinde culmicolis, sine maculis, sparsis, rotundatis, compactis, pulvinatis, 0,8-1 mm. diam., atris; teleutosporis ovato-ellipsoideis vel late ellipsoideis, apice rotundatis, non v. vix incrassatis, medio non v. vix constrictis, basi rotundatis, levibus, castaneo-brunneis, 24-30 × 18–21, episporio ca. 2,5 μ. crasso; pedicello brunneo, persistenti, usque 60 μ. longo, sæpissime e latere inserto; mesosporis globosis vel subglobosis 18-24 μ. diam. 1272

Hab. in foliis culmisque Gymnopogonis (Chloridis) foliosi, Santarem in prov. Parà Brasiliæ (R. Spruce).

345. **Puccinia glumarum** (Schum.) Erikss. et Henn. Die Getreideroste p. 141 (1896), Syd. Mon. Ured. I, p. 706, *Uredo glumarum* Schum. Allgem. ök. techn. Fl. I, p. 27 (1827). — Soris uredosporiferis hypophyllis, minutis, oblongis, usque 1 mm. longis, seriatim in lineas usque 7 cm. longas dispositis et interdum confluentibus, flavo-citrinis; uredosporis globosis, subglobosis v. late ellipsoideis, echinulatis, flavis, 25–30 × 18-26; soris teleutosporiferis hypophyllis v. culmicolis, in lineas longas dispositis, in spicis sæpe sparsis, oblongis, obscure brunneis v. atris, epidermide tectis; teleutosporis clavatis, apice rotundatis, truncatis v. conico-angustatis, incrassatis, 4-6 μ. interdum usque 10, medio leniter constrictis, basi attenuatis, levibus, brunneis, 30-70 × 12–24; pedicello brevissimo, subnullo; paraphysibus brunneis, numerosis. 1273

Hab. in foliis, culmis vel spicis Brachypodii silvatici, Bromi mollis, Calamagrostidis Epigei, Elymi arenarii, Hordei hexastici, jubati, vulgaris, Secalis Cerealis, Tritici canini, compacti, dicocci, desertorum, distichi, duri, gigantei, polonici, repentis, Speltæ, turgidi, vulgaris in tota Europa, Ægypto, America boreali, Japonia.

346. **Puccinia flavescens** Mc. Alp. Proc. Linn. Soc. N. S. Wales 1903, p. 558. — Soris uredosporiferis epiphyllis, minutis, lineari- 1274

bus, interdum confluentibus, immersis, pulverulentis, rufo-brunneis; uredosporis globosis vel breve-ellipsoideis, minute echinulatis, aureo-brunneis, 21-24 μ. diam. vel 25-28 × 21-24; poris germinationis 5, irregulariter sparsis; soris teleutosporiferis minutis, ellipsoideis, nigris, sæpe confluentibus; teleutosporis intense brunneis, oblongis, ad septum constrictis, apice rotundatis, levibus, 33-48 × 18-24; pedicello persistenti, colorato, usque 72 μ. longo.

Hab. in foliis Stipæ flavescentis, Hampton in Victoria Australiæ.

347. **Puccinia Epicampis** Arthur, New spec. of Ured. in Bull. Torr. Bot. Cl. 1901, p. 662. — Soris amphigenis, oblongis vel linearibus; soris uredosporiferis brunneo-luteis, epidermide lacerata, liberis, prominentibus; uredosporis oblongis vel subglobosis 22-24 × 26-30, episporio brunneo echinulato vel papillato; soris teleutosporiferis intense brunneis; teleutosporis oblongis vel ellipticis, ad septa paullo vel non constrictis utrinque rotundatis, 30-40 × 22-26; pedicello firmo hyalino, basi colorato 40-90 μ. longo. 1275

Hab. in foliis Epicampis ringentis, Hot Springs, N. Mex. Amer. bor.

348. **Puccinia Enteropogonis** Syd. Monogr. Ured. I, p. 751, t. XL, fig. 528. — Soris teleutosporiferis amphigenis, plerumque hypophyllis, sparsis, minutis, rotundatis vel oblongis, 350-500 μ. longis, nudis, subpulvinatis, atro-brunneis; uredosporis immixtis globosis, subglobosis v. ellipsoideis, subtiliter verruculoso-aculeatis, dilute brunneis, 19-24 μ. diam.; teleutosporis ellipsoideis vel ovatis, utrinque rotundatis, apice non vel rarius lenissime incrassatis, medio non vel vix constrictis, levibus, castaneo-brunneis, 21-31 × 16-26, episporio ca. 2–2,5 μ. lato; pedicello crassiusculo, persistenti, hyalino, apice brunneolo, interdum laterali, usque 85 μ. longo. 1276

Hab. in foliis vivis Enteropogonis monostachyi, Usambara, Africæ orient. (C. Holst).

349. **Puccinia dispersa** Erikss. et Henn. Die Getreideroste pag. 110 (1894) Syd. Monogr. Ured. I, p. 709, *Uredo dispersa* Erikss. et Henn., *Æcidium Anchusæ* Erikss. et Henn. etc. — Æcidiis hypophyllis, sæpe etiam calyces fructusque occupantibus, maculis orbicularibus v. suborbicularibus flavidis v. rufo-flavidis insidentibus, cupulatis, margine revoluto, inciso; æcidiosporis globosis, verruculosis, aurantiacis, 20-26 μ. diam.; soris uredosporiferis præcipue epiphyllis, oblongis, ferrugineis, minutis vel mediocribus; uredosporis subglobosis, echinulatis, flavis, 22-28 μ. diam.; soris teleu- 1277

tosporiferis hypophyllis vel sæpe in vaginis evolutis, sparsis vel subinde aggregatis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis, apice rotundatis v. obtuse et oblique angustatis, parum incrassatis, medio plerumque leniter constrictis, basi attenuatis, levibus, brunneis, 40-50 × 12-20; pedicello brevi; paraphysibus brunneolis, numerosis.

Hab. æcidia in foliis calycibus fructibusque Anchusæ angustissimæ arvensis, Barrelieri, hybridæ, italicæ, ochroleucæ, officinalis, undulatæ, uredo- et teleutosporæ in foliis vaginisque vivis Secales cerealis, montani, in tota Europa, Asia minori, America bor.

350. **Puccinia Burnettii** Griffiths in Bull. of the Torr. Bot. Club. 1278
1902, p. 298. — Epiphylla; soris uredo- et teleutosporiferis latis, sparsis, 2 cm. diam. marginem foliorum recurvantibus, erumpentibus, in macula epiphylla brunnea insidentibus; uredosporis subglobosis vel ellipticis v. ovatis 20-26 μ. diam., episporio crasso, tuberculato donatis; teleutosporis utrinque rotundatis v. utrinque conico-obtusis, ad septum constrictis, 28-31 × 18-23, episporio superne crasso, inferne tenui; pedicello hyalino, 60-120 μ. longo.

Hab. in foliis Stipæ comatæ pr. Buffalo, Wyo (Williams et Griffiths) et Billings, Montana Amer. bor. (Burnett).

351. **Puccinia bromina** Erikss. in Ann. Sc. Nat. 1899, p. 271, Syd. 1279
Monogr. Ured. I, p. 712, *Pucc. Symphyti-Bromorum* Müll. Bot. Centr. Beih. 1901, p. 201, *Uredo bromina* Erikss. l. c. *Puccinia dispersa* f. *Bromi* Erikss., *Æcidium Asperifolii* Pers. *Æcid. Symphyti* Thüm., *Æcid. Pulmonariæ* Thüm. — Pycnidiis melleis; æcidiis hypophyllis v. petiolicolis, subinde etiam in calycibus evolutis; maculis orbicularibus v. irregularibus 1 cm. vel ultra longis brunneis vel purpureo-brunneis, zona flavida sæpe circundatis, insidentibus, in greges variæ magnitudinis circulariter vel plus minusve irregulariter dispositis, cupulatis, margine revoluto inciso; æcidiosporis angulato-globosis, verruculosis, aurantiacis, 18-27 μ. diam.; soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis v. hinc inde aggregatis, minutis v. mediocribus, oblongis, interdum confluentibus, ferrugineis; uredosporis subglobosis v. late ellipsoideis, echinulatis, flavis, 20-26 μ. diam.; soris teleutosporiferis hypophyllis, sparsis, minutis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. interdum obtuse et oblique angustatis, non v. parum incrassatis, medio plerumque leniter constrictis, basi sæpius attenuatis, levibus, brun-

neis, 36-50 × 14-18; pedicello brevi; paraphysibus brunneolis, numerosis.

Hab. æcidia in foliis petiolisque vivis Pulmonariæ montanæ, Symphyti officinalis, uredo- et teleutosporæ in foliis Bromi specierum omnium in tota Europa et in Asia minore.

352. **Puccinia brachysora** Diet. in Bot. Jahrb. 1902, p. 49. — Soris 1280
minutis, oblongis, uredosporiferis, hypophyllis, ochraceis, teleutosporiferis epiphyllis, griseis vel nigris, epidermide tectis; uredosporis late ellipsoideis, ovoideis vel subglobosis, 25-31 × 20-24, dilute fuscis, echinulatis, poris numerosis instructis, paraphysibus haud intermixtis; teleutosporis oblongis vel cuneatis vel irregularibus, apice truncatis vel obliquis, paullo incrassatis, ad septum vix vel non constrictis, basi rotundatis vel attenuatis, fuscis, 33-45 × 15-20; pedicello brevissimo suffultis.

Hab. in foliis Brachypodii japonici, Tokyo Japoniæ (Kusano).

353. **Puccinia Diplachnes** Arthur, Bull. Torr. Bot. Cl. 1904, p. 4. — 1281
Uredosporis, in soris teleutosporiferis, subellipsoideis vel fere globosis 24-26 × 19-21; episporio hyalino 3 μ. crasso, minute verrucoso, poris 4 æquatorialibus; soris teleutosporiferis fere semper hypophyllis oblongo-linearibus, immersis, pulvinatis, prominentibus, compactis, nigro-brunneis; teleutosporis ellipsoideis, 32-39 × 20-24, ad septum non vel vix constrictis, utrinque obtusis vel rotundatis; episporio levi, 1,5-2,5 μ. crasso, superne usque 7 μ. cr. pallide brunneo; pedicello spora concolori, 40-100 μ. longo.

Hab. in foliis Diplachnes dubiæ, Big Springs, Texas, Amer. bor. (S. M. Tracy).

354. **Puccinia brachypus** Speg. Myc. argent. ser. II, 1902, p. 61. — 1282
Maculis nullis; acervulis minutis, confluendo linearibus compactis, duriusculis epidermide tectis, fuscis, 0,25-3 mm. long., 0,15-0,30 mm. latis, subsclerotiaceis; teleutosporis obconicis levibus pallide ochraceis, medio non v. vix constrictis, 35-45 × 15-20, loculis subæquilongis, apice sæpius truncatis crassiusculequo tunicatis, intus minute et dense granulosis, pedicello subnullo 3-7 × 4-6 pallidiore suffultis.

Hab. ad folia et culmos Bromi auletici prope Rufino Nov. et in Tritico sativo prope S. Juan in Argentina. Species habitu externo et notis nonnullis ad *P. coronatam* Corda vergens, *P. sessili* Schr. etiam cognata.

355. **Puccinia Arrhenatheri** (Kleb.) Erikss. in Cohn Beitr. 1898, I, 1283

p. 1 et 1901, II, p. 111, Sydow Monogr. Ured. I, p. 729, *Puccinia perplexans* Plow. f. *Arrhenotheri* Kleb., *P. Magelhœnica* Peyr. — Syll. XI, p. 202, *Æcidium graveolens* Shuttl. — Syll. VII, p. 778. — Pycnidiis minutis, numerosissimis, magnam folii partem vel folium totum æque obtegentibus; æcidiis hypophyllis, subinde etiam in floribus evolutis, ramulos infectos deformantibus, plerumque per folium totum æque denseque distributis, cylindraceo-cupulatis, margine revoluto, albido, lacerato; æcidiosporis subglobosis vel ellipsoideis, verruculosis, flavidis, 19-32 × 16-24; soris uredosporiferis præcipue epiphyllis, rarissime hypophyllis, maculis minutis flavis insidentibus, ellipticis v. oblongis, minutis, dilute ferrugineis; uredosporis globosis v. ovatis, echinulatis, flavis 19-30 × 19-26, poris germinationis numerosis præditis; paraphysibus numerosis, usque 80 μ. longis, apice 10-14 μ. latis immixtis; soris teleutosporiferis hypophyllis, sparsis, minutis, punctiformibus v. breviter linearibus, epidermide tectis, atris; teleutosporis ellipsoideo-oblongis v. oblongo-clavatis, apice rotundatis truncatis vel rarius leniter attenuatis, incrassatis, 5-10 μ., et obscurioribus, medio non v. vix constrictis, basi plerumque attenuatis, levibus, dilute brunneis, 30-45 × 18-24; pedicello tenui, brunneolo; paraphysibus brunneolis immixtis.

Hab. æcidia in foliis floribusque Berberidis vulgaris, heteropodæ, uredo- et teleutosporæ in foliis vivis Arrhenatheri elatioris, in Germania, Austria, Hungaria, Helvetia, Suecia, Fennia, Turkestania.

356. **Puccinia agropyrina** Erikss. in Ann. Sc. Nat. 1899, pag. 273, 1284
Syd. Monogr. Uredin. pag. 712, *Uredo agropyrina* Erikss. l. c., *Puccinia dispersa* f. *Agropyri* Erikss. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis, minutis, punctiformibus, ferrugineis; uredosporis globosis, subglobosis vel late ellipsoideis echinulatis, flavis, 16-26 μ. diam.; soris teleutosporiferis hypophyllis, sparsis, interdum seriatim dispositis, minutis, oblongis, epidermide tectis, atris; teleutosporis oblongo-clavatis, apice rotundatis v. obtuse et oblique angustatis, vix vel leniter incrassatis, medio plerumque leniter constrictis, basi attenuatis, levibus, brunneis, 36-56 × 13-18; paraphysibus brunneolis, numerosis.

Hab. in foliis Agropyri repentis, in Germania, Austria, Hungaria, Italia et Suecia.

357. **Puccinia negrensis** P. Henn. Fungi Amaz. I, p. 159 (Hedw. 1285
1904). — Maculis minutis vel confluente-effusis, ferrugineis; ure-

dosoris amphigenis, pulvinatis, diutius tectis, ferrugineis; uredosporis ovoideis, interdum subglobosis vel ellipsoideis flavido-brunneis, aculeato-verrucosis, 15-24 × 13-18; teleutosporis hypophyllis gregarie sparsis, rotundato-pulvinatis firmis, cinnamomeis, ca. 0,3-0,4 μ. diam.; teleutosporis ovoideis interdum ellipsoideis, apice vix incrassatis, rotundatis, medio 1-septatis constrictis, flavo-brunneis, levibus, 15-25 × 10-16; stipite plus minus elongato, hyalino subflavidulo, 10-30 × 2-3.

Hab. in foliis Panici sp., Rio Negro, Moura, Amer. merid. — Soris firmis, pulvinatis, teleutosporarum notis sat distincta species.

358. **Puccinia simillima** Arth. in Bot. Gaz. 1902, XXXIV, p. 17, II, III. — Soris amphigenis minusculis, oblongis, epidermide fissa; uredosoris late flavis pulverulentis, paraphysibus clavatis intermixtis; uredosporis obovato-oblongis clavatisque, 26-44 × 18-22, modice tunicatis, aureo-flavis, minute tuberculatis et interdum leviter echinulatis, poris germinat. sparsis, obsoletis; teleutosoris minutis, copiosissimis, subnigris; teleutosporis, subinde ex uredosoris provenientibus, lineari-oblongis v. oblongo-lanceolatis, septo leniter constrictis, 42-56 × 15-20, basi tenuatis, apice acutiusculis v. plus minus obtusis, ad 15 μ. incrassatis; pedicello firmo, crasso, sporam plus minus æquante. 1286

Hab. in foliis et vaginis Phragmitis communis in Americæ borealis pluribus locis. — Pycnidia et æcidia incerta.

359. **Puccinia peridermiospora** Arthur, Science I, p. 565 (1899), *Puccinia fraxinata* (Link) Arth. in Bot. Gaz. 1902, p. 6. — I *Cæoma fraxinatum* Link in Willd. sp. pl. 62, p. 62, *Æcidium Fraxini* Schw. — Syll. VII, p. 806. — II *Uredo peridermiospora* Ell. et Tr. — Syll. IX, p. 333. — *Puccinia sparganioides* E et Tr. III. — Teleutosoris pulvinatis, atro-brunneis, hypophyllis; teleutosporis ellipsoideo-oblongis, 35-62 × 16-22, septo leniter constrictis, apice obtusis incrassatisque; pedicello firmo, angusto, sporam æquante v. duplo longiore. 1287

Hab. II-III in foliis Spartinæ cynosuroidis in Amer. boreali pluribus locis. — In foliis *Fraxini lanceolatæ* et *F. pennsylvanicæ*, socio Æcidiolo pycnidiis epiphyllis, flavidis, exiguis; sporulis obovato-oblongis 5 × 3.

360. **Puccinia Seymouriana** Arth. in Bot. Gaz. 1902, XXXIV, p. 11. — Soris epiphyllis, internerviis, prominulis, oblongis, epidermide rupta obsolete cinctis; uredosporis globosis v. late ellipsoideis, 30-45 × 26-39, tuberculatis, contentu aurantiaco globuloso, dein flavo 1288

angulosoque; tunica hyalina, poris germinativis obsoletis; teleutosoris pulvinatis, cinnamomeo-brunneis; teleutosporis ellipsoideo-oblongis, 37-52 = 20-26, ad septum leviter constrictis apice obtuso incrassato; pedicello firmo, tenui, colorato, teleutosporam æquante v. triplo longiore.

Hab. in foliis Spartinæ cynosuroidis Massachusetts, Wisconsin, Illinois, Jowa, Ontario etc. Amer. bor.

361. **Puccinia himalensis** (Barcl.) Diet. in Engl. Prantl, Pflanzenfam. Pilze II, p. 63 (1900); Syd. Monogr. Ured. I, p. 738, *P. coronata* var. *himalensis* Barcl. Trans. Linn. 1891, pag. 227, t. LVI. — Æcidiis hypophyllis, maculis rotundatis flavo-brunneis v. rufo-brunneis insidentibus, laxe fasciculatis, longe cylindraceis, usque 2 mm. longis, albis; æcidiosporis globosis vel angulatis, verruculosis, flavis, 19-25 = 19-22; soris uredosporiferis præcipue epiphyllis, sparsis, minutis v. mediocribus, flavo-brunneis; uredosporis globosis, subtiliter echinulatis, pallide flavo-brunneis, 20–24 μ. diam., poris germinationis tribus vel quatuor instructis; soris teleutosporiferis epiphyllis, sæpe etiam in vaginis evolutis, sparsis, minutissimis, plerumque rotundatis, compactiusculis, nudis, atris; teleutosporis clavatis, apice usque 5 μ. incrassatis et dentibus 2 vel pluribus, 2–11 μ. longis coronatis, medio non v. parum constrictis, basi attenuatis, levibus, 38-52 μ. longis, cellula superiore 16–22 μ. lata et brunnea, inferiore 9–16 μ. lata et pallidiore; pedicello brunneolo, crassiusculo, usque 30 μ. longo. 1289

Hab. æcidia in foliis ramulisque vivis Rhamni dahuricæ, uredo- et teleutosporæ in foliis vaginisque Brachypodii silvatici in Simla Indiæ orient. (Barclay).

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362. **Puccinia Oudemansii** Tranzsch. in Sydow, Mon. Ured. I, p. 894. — Teleutosoris hypophyllis v. amphigenis v. etiam petiolicolis, 1-4 mm. diam., rotundatis v. irregularibus, epidermide diu tectis, pulverulentis, castaneo-brunneis; teleutosporis, oblongis v. oblongo-clavatis apice sæpius rotundatis, leniter incrassatis, usque 7 μ., medio constrictis, basi rotundatis v. attenuatis flavo-brunneis, verruculosis, verruculis haud raro in strias dispositis, 30-44 = 14–20; pedicello hyalino deciduo. 1290

Hab. in foliis pedicellis petiolisque Parryæ (Matthiolæ) monocarpæ et P. pinnatifoliæ, Nowaja-Semlja, Bering et in Turkestania.

363. **Puccinia Cortusæ** Tranzsch. in Sydow, Mon. Ured. I, p. 886. 1291

— Maculis inferne nullis superne lutescenti-brunneolis, rotundatis 1-2 mm. diam., teleutosoris hypophyllis rarius epiphyllis pulverulentis atro-fuscis, teleutosporis ellipsoideis utrinque rotundatis non incrassatis, medio vix constrictis, brunneis, levibus, 22-36 × 15-21, poris germinativis papillulis hyalinis tectis, superiori vulgo apicali, inferiori ad septum posito; pedicello hyalino fragili caduco.

Hab. in foliis Cortusæ Matthioli in jugo Alaico Turkestaniæ (W. Tranzschel).

364. **Puccinia Myosotidis** Tranzsch. in Sydow, Mon. Ured. I, p. 880. 1292
— Teleutosoris hypophyllis v. etiam amphigenis et caulicolis, maculis flavidis insidentibus, minutis, sed in greges magnos rotundatos v. elongatos usque 1 cm. longos dense dispositis et demum in crustam omnino confluentibus, epidermide tectis, atris, compactis; teleutosporis oblongo-clavatis v. clavatis, apice rotundatis v. truncatis, rarius acutiusculis, vix v. leniter incrassatis (usque 4 μ.), medio vix leniter constrictis, basi attenuatis, levibus, brunneis, apice castaneo-brunneis, 40-64 × 14-22; pedicello brunneolo, persistenti, brevissimo; mesosporis solitariis minutis.

Hab. in foliis caulibusque Myosotidis silvaticæ Inkeschtam Turkestaniæ (Tranzschel).

365. **Puccinia Penningtonii** Syd. Monogr. Ured. I, p. 875. — Teleu- 1293
tosoris amphigenis, maculis nullis, sparsis; punctiformibus, 0,2-0,5 mm. diam., pulverulentis, atris; uredosporis immixtis subglobosis v. oblongo-ellipsoideis, aculeatis, flavis, 27-42 × 24-31; teleutosporis ellipsoideis v. oblongis, utrinque rotundatis, apice non v. vix incrassatis, medio non v. vix constrictis, verrucosis, læte castaneo-brunneis, 38-56 × 25-30; pedicello hyalino, crasse inflato, usque 40 μ. deorsum sæpe napiformi, toto usque 85 μ. longo.

Hab. in foliis Grabowskiæ duplicatæ, San Fernando Argentinæ (M. Sc. Pennington).

366. **Puccinia nocticolor** Holw. Ann. Mycol. 1904, p. 391. — Æci- 1294
diis in maculis flavis sæpius hypophyllis, circinantibus v. nervisequis; pseudoperidiis haud reflexis, 1-2 mm. long.; æcidiosporis globoso-angulosis, raro oblongis, 24-34 × 16-24, minute tuberculatis; cellulis pseudoperidii 40-56 × 24-40, membrana 8-12 μ. cr., fortiter tuberculata; teleutosoris nigris, pulvereis, vulgo epiphyllis, æcidiis contrapositis, epidermide rupta cinctis, sæpe confluentibus; teleutosporis oblongis, atro-brunneis, opacis, leviter constrictis, papilla apicali 12 μ. longa terminatis, 60-80 × 28-40, grosse verrucosis; pedicello sursum colorato, 160 μ. longo.

Hab. in foliis Ipomœæ intropilosæ, I. murucoidis et I. sp. in pluribus locis Mexici.

367. **Puccinia rubicunda** Holw. Ann Mycol. 1904, p. 392. — Æcidiis 1295
amphigenis, minutissimis, sparsis, pseudoperidio non reflexo; æcidiosporis globosis, globoso-angulosis, rarius ellipsoideis, plano-tuberculatis 22–28 × 20-24; cellulis pseudoperidii 28-40 × 12-16 membrana 2–4 μ. cr.; teleutosoris epiphyllis, minutis, nigris, pulverulentis, vulgo circinantibus circa æcidia, subinde sparsis; teleutosporis tuberculatis, atro-rufo-brunneis, ellipsoideo-oblongis, apice rotundatis, non incrassatis, 44–56 × 24-28; pedicello sursum dilute colorato, usque 70 μ. longo.

Hab. in foliis Ipomœæ sp. (an I. intropilosæ?) pr. Vera Cruz, Mexico.

368. **Puccinia insignis** Holw. Ann. Mycol. 1904, p. 392. — Teleu- 1296
tosoris in maculis flavis epiphyllis, in soros 3-4 mm. diam. aggregatis, non confluentibus, epidermide cinctis; teleutosporis cinnamomeo-brunneis ellipsoideo-oblongis, apice papilla conica flavobrunnea usque 16 μ. longa terminatis, minute striato tuberculatis 68-80 × 32–40; pedicello hyalino crasso usque 80 μ. longo.

Hab. in foliis Ipomœæ sp. Cuernavaca, Mexico.

369. **Puccinia superflua** Holw Ann. Mycol. 1904, p. 392. — Teleu- 1297
tosoris amphigenis, minutis, in maculis flavis, parvis insertis, nigris, pulverulentis; teleutosporis rufo-brunneis, plano-tuberculatis, late ellipsoideis, rarius oblongis, 44-68 × 28-36, cellula superiore rotundata, apice breviter conico-papillata; pedicello sursum colorato, subinde lateraliter inserto, usque 80 μ. longo.

Hab. in foliis Ipomœæ murucoidis, Iguata, Guerrero, Mexico.

370. **Puccinia Cupheæ** Holw. Ann. Mycol. 1904, pag. 393. — Te- 1298
leutosoris atro-brunneis, in maculis rubris vel flavis, plerumque hypophyllis, sparsis vel circinatis, in soros minutos sæpe confluentes dispositis; teleutosporis ellipsoideo-clavatis levibus flavo-brunneis, 37-48 × 15–19, ad septum constrictis, cellula superiori vulgo rotundata, rarius acuta, inferiori in pedicellum tenuata; pedicello hyalino, vel leviter colorato, sporam dimidiam subæquante.

Hab. in foliis Cupheæ procumbentis et Cuph. sp. in Valle Mexici.

371. **Puccinia jaliscensis** Holw. Ann. Mycol. 1904, p. 393 — Soris 1299
perexiguis, in maculis rubris vel flavis, vulgo hypophyllis, in

greges 5 mm. diam. dispositis, subinde confluentibus, singulis 1 mm. diam epidermide rupta cinctis; teleutosporis oblongo-clavatis vel linearibus, apice acutis v. rotundatis, ochroleucis, levibus, 44-74 × 15-19, cellula inferiori in pedicellum tenuata; membrana 4-8 µ. crassa; pedicello colorato 45 µ. longo.

Hab. in foliis Cupheæ Hookerianæ, C. cyaneæ, C. squamuliferæ, C. nitidulæ, Jalisco, Oaxaca, Jalapa, Cuernavaca Mexici.

372. **Puccinia Asperulæ-cynanchicæ** Wurth, Centralbl. f. Bakt. II, Abt. XII, 1904, p. 814 (absque diagnosi), *P. Asperulæ* Fuck. p. p. 1300

Hab. in foliis Asperulæ cynanchicæ, Bern Helvetia. — Forma biologica.

373. **Puccinia Galii-silvatici** (Otth in herb.) Wurth, Centralbl. f. Bakt. II, Abt., XII, 1904, p. 714 (absque diagnosi). 1301

Hab. in foliis Galii silvatici, Bern Helvetiæ. — Forma biologica.

374. **Puccinia Asperulæ-odoratæ** Wurth, Centralbl. f. Bakt. II, Abt. XII, 1904, p. 714 (absque diagnosi), *P. Asperulæ* Fuck. p. p. 1302

Hab. in foliis Asperulæ odoratæ, Bern Helvetiæ. — Forma biologica.

375. **Puccinia orbiculata** Sydow, Mon. Ured. I, p. 896. — Teleutosoris hypophyllis, maculicolis, exacte in circulum 4-7 mm. dispositis confluentibusque, compactis, obscure brunneis; teleutosporis ellipsoideis utrinque rotundatis apice non incrassatis, medio non v. vix constrictis, brevibus, brunneis, 22-32 × 17-22, episporio 4 µ. cr.; pedicello hyalino tenui subinde oblique inserto sporam subæquante; mesosporis interdum paucis immixtis. 1303

Hab. in follis Trymatococci africani in M. Bomole Africæ trop. or. (A. Kabasek).

376. **Puccinia Commelinæ** Holw. Ann. Mycol. 1904, p. 393. — Maculis flavis vel demum brunneis, irregularibus; uredosoris hypophyllis, sparsis, brunneis, epidermide rupta cinctis; uredosporis globoso-ovoideis, pallide brunneis, echinulatis 24-32 × 24-28, poris germinativis 2; teleutosoris hypophyllis compactis, punctiformibus, sparsis, vulgo in parvos greges dispositis, brunneis; teleutosporis paraphysibus brunneis cinctis, constrictis, levibus, oblongo-clavatis, linearibus, arcuatis, sursum acutis vel truncatis vel rotundatis 44-68 × 16-24, brunneis, apice quandoque, lateraliter acute apiculatis; pedicello brevi, brunneo, rarius hyalino. 1304

Hab. in foliis Commelinæ sp. Guadalajara, Oaxaca, Chapala, Cuernavaca, Morelos, Jalapa Mexici.

377. **Puccinia Penniseti** Zimm. Berichte üb. Land und Forstwirth. Deutsch. Ostafrika, 1904, I, p. 16, t. I, f. 5. — Maculis longitudinalibus, flavis, demum atro brunneis; teleutosoris atris in centro maculorum; uredosporis versiformibus ovato-piriformibus, verruculosis, 33-38 × 23-30; pedicello hyalino 25 × 5; poris germinativis quaternis æquatorialibus; teleutosporis oblongo-clavatis, apice rotundatis, constricto-1-septatis, 40-60 × 16-20; pedicello hyalino, brevissimo 6-9 µ. cr.; paraphysibus nullis; poris germinativis nullis visis. 385

Hab. in foliis et culmis Penniseti spicati, Amani in Africa orient. — A *Pucc. purpurea* et *P. Maydis* præsertim pedicello brevissimo dignoscenda. Quoad *P. Penniseti* Barcl. Journ. Asiat. Soc. Beng. 1891, pag. 215, cfr. Syd. Monogr. Ured. I, p. 804.

378. **Puccinia Arthuri** Sydow Mon. Ured. I, 775. — Uredosoris amphigenis minutis subrotundis, tectis flavo-ferrugineis; uredosporis subglobosis echinulatis, flavo-brunneis 22-32 × 20-25, soris germin. 4 æquatorialibus; teleutosoris vulgo oblongis, 1 mm. long., tectis tandem erumpentibus, atris; teleutosporis ovato-oblongis vel oblongo-clavatis apice rotundatis leniterque incrassatis 3–6 µ., medio subconstrictis, basi rotundatis v. tenuatis, levibus, brunneis, 28–45 × 16–24; pedicello hyalino v. flavidulo persistenti, crasso, usque 100 µ. longo. 386

Hab. in foliis Penniseti mexicani, Mexico (Holway).

379. **Puccinia Rottboelliæ** Sydow, Mon. Ured. I, p. 800, tab. XLII, fig. 545. — Teleutosoris subsparsis oblongis vel linearibus 0,5–3 mm. long., epidermide fissa cinctis, atris; teleutosporis ellipsoideo-oblongis, apice rotundatis subincrassatis usque 10 µ., medio vix constrictis basi rotundatis, levibus, brunneis, 34–54 × 22–27; pedicello hyalino persistenti crassiusculo, usque 120 µ. longo, sæpe lateraliter inserto. 387

Hab. in foliis Rottboelliæ arundinaceæ in valle Mai Mezannæ Abyssiniæ (Schimper).

380. **Puccinia luxuriosa** Sydow, Mon. Ured. I, p. 812, tab. XLII, fig. 548, *P. tosta* v. *luxurians* Arth. Bull. Torr. Cl. 1902, p. 229. — Teleutosoris amphigenis, subsparsis sæpe striiformibus, usque 6 mm. long., atris; uredosporis immixtis subglobosis, verrucoso-echinulatis, flavo-brunneis, 22-30 µ. diam., poris germin. 6 instru- 388

ctis, ca. 2 μ. cr.; teleutosporis ellipsoideo-oblongis, apice rotundatis, incrassatis usque 10 μ., medio subconstrictis, basi saepius rotundatis, levibus, brunneis, 36–56 × 20–28; pedicello apice brunneolo, persistenti, crasso, usque 110 μ. longo.

Hab. in foliis Sporoboli airoidis, Oregon et Montana Amer. bor.

381. **Puccinia Actinellæ** (Webb.) Syd. Mon. Ured. vol. I, p. 4, 1902. Ita vocanda *Puccinia Tanaceti* D. C. var. *Actinellæ* Webb. Rep. Nebraska 1889 et Sacc. Syll. IX, p. 302.

382. **Puccinia Gnaphalii** (Speg.) Henn. in Hedw. 1902, p. (66). *Uredo Gnaphalii* Speg. — Syll. VII, pag. 849. — Huc ducenda est *P. gnaphalicola* Henn. — Syll. XVI, p. 295.

383. **Puccinia Mac-Alpini** Syd. Mon. Ured. vol. I, p. 100. Ita dicenda *P. Hypochœridis* Mc. Alp. in Roy. Soc. Victoria 1894. p. 217 et Sacc. — Syll. XIV, p. 310, nec Oud.

384. **Puccinia nigrescens** Kirchn. in Lotos 1856, p. 182. Syd. Mon. Ured. vol. I, p. 288. Ita vocanda *Pucc. obtusa* Schroet. in Abh. Schl. Ges. 1869, p. 13. — Sacc. Syll. VII, p. 604.

385. **Puccinia Giberti** Speg., Sacc. Syll. VII, p. 653. *Puccinia Hyptidis* (Curt.) Tracy et Earle in Bull. Missip. Agr. Exper. Stat. XXXIV, 1895, p. 86. Status æcidialis est *Æcidium tucumanense* Speg. — Sacc. Syll. VII, p. 816, *Æcidium Hyptidis* P. Henn. — Sacc. Syll. XIV, p. 385.

386. **Puccinia Salviæ-lanceolatæ** Bubák in Syd. Mon. Ured. vol. I, p. 294, tab. XX, f. 280, *Puccinia nigrescens* Peck in Bot. Gaz. 1878, p. 35, Sacc. — Syll. VII, p. 720, nec Kirchn.

387. **Puccinia constricta** (Lag.) Bubák in Centralbl. f. Bakter. 1902, IX, p. 919. Ita vocanda *P. Schneideri* var. *constricta* Lagh. — Syll. IX, p. 302.

388. **Puccinia Porteri** Peck in Th. C. Porter and John M. Coulter Synop. of the Fl. of Colorado 1874, p. 164, Syd. Mon. Ured. vol. I, p. 258. Huc ducenda *Pucc. albulensis* P. Magn. in Ber. Deuts. Bot. Ges. 1890, p. 169, Sacc. Syll. IX, p. 300.

389. **Puccinia Veronicæ** Schröt., Syd. Monogr. Ured. I, p. 256. Ita vocanda est *Pucc. Veronicæ* (Schum.) Wint., nam exempl. orig. Schumacheri *Uredinis Veronicæ* nullam Uredineam præbent.

390. **Puccinia Lobeliæ** Grev. Bull. Buff. Soc. Nat. Sc. I. p. 66 (1873) Syd. Mon. Ured. vol. I, p. 195. Huc spectat *Puccinia microsperma* B. et C. in Grev. III, p. 55 et Sacc. Syll. VII, p. 713.

391. **Puccinia phlyctopus** Syd. Mon. Ured. vol. I, p. 242, tab. XVI,

fig. 225, *Pucc. Amphilophii* Diet. et Holw. in Bot. Gaz. XXV, 1897, p. 30, Sacc. Syll. XIV, p. 326. — Matrix est Pithecoctenium hexagonum, nec Amphilophium; nomen specificum ergo corrigendum erat.

392. **Puccinia Toumeyi** Sacc. et Syd. (= *P. circinans* Ell. et Ev. nec Diet.). — Syll. XVI, pag. 299, 1902 (Febr.). Huc ducenda est *P. Chasmatis* Ell. et Ev. in Journ. of Mycol. vol. 8, p. 15, 1902 (Majo).

393. **Puccinia novo-zelandica** Bubák in Sitz. Kgl. böhm. Ges. Wiss. Prag 1901, p. 5 (extr.) Ita vocanda *Pucc. compacta* Berk. in Fl. Nov. Zeal. II, p. 195 et Sacc. Syll. IX, p. 309, non Kunze.

394. **Puccinia Schweinfurthii** (P. Henn.) Magn. in Ber. Deutsch. Bot. Ges. 1892, p. 44, Syd. Mon. Ured. vol. I, fasc. III, p. 449. Huc ducenda, teste Magn. *Rostrupia Schweinfurthii* P. Henn., Sacc. Syll. XI, p. 208.

395. **Puccinia gregaria** Kunze in Weigelt exsicc. 1827, Syd. Mon. Ured. vol. I, fasc. III, pag. 520. Huc ducendæ sunt *Dasyspora foveolata* Berk. et Curt. — Syll. IX, p. 314 et XI, pag. 205 et *Pucc. Winteri* Pazschke — Syll. IX, p. 300.

396. **Puccinia acuminata** Peck in 23 Rep. State Bot. Mus. New York 1872, p. 57, nec Fuck. Ita vocanda *Pucc. porphyrogenita* Curt. in Thuem. Myc. un. n. 545, Sacc. Syll. VII, p. 703.

397. **Puccinia Ribis** DC. — Syll. VII, pag. 679. — Huc ducenda *Pucc. Acerum* Link ex errore matricis orta.

398. **Puccinia Mariæ-Wilsoni** Clint. — Syll. VII, p. 673. — *Pucc. claytoniata* Syd. Monogr. Ured. I, p. 561. Huc spectat *Æcidium claytoniatum* Schw. 1834.

399. **Puccinia Thuemeniana** Voss. — Sacc. Syll. VII, p. 618. — Status æcidiosp. est *Æcidium involvens* Voss.

400. **Puccinia Arenariæ** (Schum.) Schröt. — Syll. VII, p. 683. Huc spectat *Pucc. circinans* Fuck. *Campanulæ Trachelio* falso attributa.

401. **Puccinia solitaria** Syd. Mon. Ured. vol. I, fasc. III, pag. 483. Sic denominanda *P. simplex* Peck — Syll. VII, p. 698, nec Körn.

402. **Puccinia ægra** Grove — Sacc. Syll. VII, p. 614. — Status æcidiosporus est *Æcidium depauperans* Vize.

403. **Puccinia asiatica** (Kom.) Syd. Mon. Ured. vol. I, fasc. III, pag. 499. Ita vocanda *P. Heucheræ* (Schw.) Diet. var. *asiatica* Kom. — Sacc. Syll. XVI, p. 286.

404. **Puccinia curtipes** Howe in Bull. Torr. Bot. Club. 1874, p. 3. — Syll. VII, p. 619. Huc ducenda sunt, teste Sydow Mon. Ured.

vol. I, fasc. III, pag. 501, *P. Saxifragæ* Schlecht. var. *curtipes* Diet. et *P. striata* Cooke. — Syll. VII, p. 734.

405. **Puccinia Heucheræ** (Schw.) Diet. in Ber. Deutsch. Bot. Ges. 1891, p. 42, Syd. Mon. Ured. vol. I, pag. 497, *Uredo Heucheræ* Schw. Syn. Fg. Carol. p. 71 (1822). — Huc ducendæ *P. Tiarellæ* B. et C. — Sacc. Syll. VII, p. 701 —, *P. spreta* Peck — Syll. VII, p. 701, *P. congregata* Harkn. — Syll. VII, p. 702.

406. **Puccinia Astrantiæ** Kalchbr. Verz. Zipser Schwämme in Mitt. d. Ung. Akad. du Wissensch. Pest. Bd. III, 1865, p. 309, Syd. Mon. Ured. vol. I, p. 361. Huc ducenda *Pucc. astrantiicola* Bubák in Sity. Kgl. böhm. Ges. Wiss. 1900, n. XXVI, Sacc. Syll. XVI, p. 285.

407. **Puccinia Falcariæ** (Pers.) Fuck. Symb. Myc. 1869, p. 52, Syd. Mon. Ured. vol. I, p. 380. Ita vocanda *Pucc. Sii-Falcariæ* (Pers.) Schroet. Sacc. Syll. VII, p. 666.

408. **Puccinia bullata** (Pers.) Schröt. — Syll. VII, pag. 634. Huc spectat *P. Castagnei* Schröt., quæ non in *Thalictro* sed in *Silao pratensi* provenit, teste cl. Tranzs. Ann. mycol. 1904, p. 158.

409. **Puccinia Eryngii** DC. Encyl. VIII, p. 249 (1808) et Fl. franc. VI, p. 58, Syd. Mon. Ured. vol. I, pag. 379. Ita vocanda *Puccinia Pimpinellæ* (Str.) Lk. var. *Eryngii* Wint. — Sacc. Syll. VII, p. 616-17.

410. **Puccinia tumida** Grev. Fl. Edinb. p. 430 (1824). Ita vocanda *Puccinia isoderma* Lindr. — Sacc. Syll. XVI, p. 284.

411. **Puccinia Peucedani-parisiensis** (DC.) Lindr. in Acta Soc. pro Fauna et Fl. fenn. XXII, I, pag. 79 (1902), *P. Umbelliferarum* var. *Peucedani-parisiensis* DC. Huc ducendæ sunt *Pucc. rugulosa* Tranzsch. — Sacc. Syll. XI, p. 187 — et *P. auloderma* Lindr. — Syll. XVI, p. 282.

412. **Puccinia Bupleuri-falcati** (DC.) Wint. Pilze 1884, p. 212. Huc spectant *Puccinia Bupleuri* Rud. in Linnæa IV, pag. 514. Sacc. Syll. VII, pag. 610, *Uredo Bupleuri* Barcl. Descript. List of the Ured. of Simla III, pag. 98, Sacc. Syll. IX, p. 332.

413. **Puccinia Bulbocastani** (Cum.) Fuck. Symb. Myc. p. 52 (1869). Ita vocanda *Puccinia Bunii* Wint. Pilze p. 197, Sacc. Syll. VII, p. 667.

414. **Puccinia punctata** Link Obs. Myc. II, p. 30, in Mag. naturf. Feunde Berlin 1816, Syd. Mon. Ured. vol. I, p. 213. Ita vocanda *Puccinia Galii* (Pers.) Schwein Syn. Carol. p. 73 et Sacc. Syll. VII, p. 600.

415. **Puccinia Morreniæ** (Speg.) Syd. Mon. Ured. vol. I, p. 332. Ita vocanda *Pucc. Araujæ* Lv. var. *Morreniæ* Speg. in Fung. Argent. novi v. crit. 1899, p. 226. — Sacc. Syll. XVI, pag. 305.

416. **Puccinia Mühlenbeckiæ** (Cooke) Syd. Mon. Ured. vol. I, fasc. III, p. 566. Ita vocanda *P. Rumicis scutati* (DC.) Wint. var. *Mühlenbeckiæ* Cooke — Syll. IX, p. 299.

417. **Puccinia Polygoni-amphibii** Pers. — Syll. VII, p. 636. Hujus est synonymon *Puccinia Lysimachiæ* Karst. ex errore matricis orta.

418. **Puccinia pallens** Syd. Ann. Mycol. 1903, pag. 19. Ita denominanda *P. pallida* Massee, Kew Bull. 1901, p. 168, cum exstet homonyma Tracyii (1893).

419. **Puccinia Asphodeli** Duby — Sacc. Syll. VII, p. 666. — Huc ducenda est *P. maculicola* D'Alm. et Da Cam. in Rev. agr. de Port. 1903, n. 7, p. 226, in foliis Asphodeli nec in foliis Urgineæ Scillæ ut creditur l. c. — Confer *errata-corrige* in Revista agronomica de Portugal, 1903, n. 12, pag. 393.

420. **Puccinia Rossiana** (Sacc.) Lagh. in Bol. Soc. Brot. 1890, VIII, p. 137. Ita nominanda *P. Liliacearum* Duby var. *Rossiana* Sacc. Syll. VII, p. 668, *P. Scillæ* Linh — Syll. VII, pag. 735: cfr. Syd Mon. Ured. I, 1903, p. 631, tab. XXXV, fig. 470.

421. **Puccinia Buchloës** (Webb.) Syd. Mon. Ured. I, 1903, p. 740. Huc ducenda est *P. vexans* Farl. var. *Buchloës* Webb. — Syll. IX, p. 308.

422. **Puccinia purpurea** Cooke — Syll. VII, p. 657. — Quoad illustrationem et synonymiam cfr. W. Busse in Berichte Deutsch. Bot. Gesell. 1982, p. 283, c. tabula.

423. **Puccinia tatarica** Tranzsch. ap. Syd. Monogr. Ured. I, p. 864. Ita vocandus, test. Tranzsch. et Syd. l. c., *Uromyces Mulgedii* Lindr. (vide supra pag. 244), nam typus teleutosporas biloculares numerosissimas, ellipsoideas, non v. vix constrictas, læte brunneas, 30-40 × 18-26, intermixtis mesosporis, gignit.

Hab. in foliis caulibusque Mulgedii tatarici, Tibet.

DIORCHIDIUM Kalchbr. — Syll. VII p. 736, IX p. 314, XIV p. 359, XVI p. 313.

1. **Diorchidium manaosense** P. Henn. Fungi Amaz. I, p. 159 (Hedw. 1309
1904). — Maculis fusco-ferrugineis, bullatis, rotundatis vel confluentibus; soris rotundato-congestis, fusco-cinnamomeis, plerumque zona incrassata atra circundatis, hypophyllis vel pedunculicolis effusis; teleutosporis plerumque diorchidiis, verticale 1-septatis, 25-

30 μ. longis, 30-40 μ. latis, interdum horizontaliter septatis, cellulis subglobosis valde constrictis, episporio crasso, castaneo verrucoso, verrucis papilliformibus, hyalino-fuscidulis, 3-4 μ. diam.; stipite ca. 10-15 × 6-8, hyalino, fuscidulo.

Hab. in foliis caulibusque Lonchocarpi rariflori, Rio Negro, Manaos, Amer. merid. — Affine *D. Piptadeniæ* Diet.

2. **Diorchidium leve** Sacc. et Bizz. — Syll. VII, p. 377. — *Puccinia levis* (Sacc. et Bizz.) P. Magn. in Ber. Deutsch. Bot. Ges. 1891, Bd. IX, p. 190, Syd: Mon. Ured. I, p. 759, — Soris uredosporiferis amphigenis, maculis flavidis v. rufo-flavis, indeterminatis, insidentibus, sparsis, minutis, punctiformibus, rotundatis v. oblongis, epidermide diu tectis, pulverulentis, flavo-brunneis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis 24-30 μ. diam. v. 24-30 × 17-24, poris germinationis binis instructis; soris teleutosporiferis amphigenis, sparsis, rotundatis v. ovatis 0,5-1 mm. diam., epidermide fissa cinctis, atris; teleutosporis ellipsoideis v. oblongo-ellipsoideis, episporio superne valde incrassato, usque 10 μ., ad septum constrictis, septo plerumque verticali vel obliquo, raro horizontali instructis, levibus, brunneis, 32-40 × 24-38; pedicello hyalino, persistenti, crasso, usque 150 μ. longo.

Hab. in foliis vivis Manisuris granularis in Brasilia, Columbia, Portorico, Martinica, Guadalupa. — Teleutosporæ pleræque longitrorsum septatæ hinc species in gen. *Diorchidio* servanda est.

STICHOPSORA Diet. — Syll. XVI p. 318.

1. **Stichopsora Mentzeliæ** Diet. et Holw. in Bot. Gaz. 1901, n. 5, p. 337, et Hedw. 1901, p. (61). — Soris hypophyllis, sparsis, parvis, uredosporiferis luteo-aurantiacis, in sicco albis; uredosporis breve catenulatis 20-28 × 20-24, episporio verrucoso hyalino præditis; soris teleutosporiferis viscidis, sanguineo-rubris 100-120 μ. diam.; teleutosporis seriatis, cylindrico-clavatis vel ellipsoideis 24-45 × 14-20 initio 1-cellularibus, dein 1-septatis; episporio usque 8 μ. crasso; sporidiolis ellipticis utrinque subconicis, 15 × 10-13. 1310

Hab. in foliis Mentzeliæ hispidæ, Chapala Mexico.

2. **Stichopsora Madiæ** (Cke.) Syd. Ann. Mycol. 1904, p. 30. Huc ducendum *Coleosporium Madiæ* Cooke — Syll. VII, p. 758.

GYMNOCONIA Lagerh. — Syll. XIV p. 360, XVI p. 314.

1. **Gymnoconia Riddelliæ** Griffiths in Bull. of the Torr. Bot. Club. 1902, pag. 296, fig. 6. — Pycnidiis hypophyllis, sparsis, prominenti- 1311

bus, aurantiaco-luteis; sporidiis globulosis, hyalinis, 2-3 μ. diam.; æcidiis amphigenis, sparsis, circularibus, ovalibus. irregularibus v. confluentibus, in areis latis lilacino-purpureis, in sicco brunneo-marginatis; æcidiosporis globosis vel subovatis 7-8 μ. diam., episporio levi, tenui; soris uredosporiferis amphigenis, circularibus, 0,5 mm. diam., subepidermicis, maculas minutas albidas formantibus; uredosporis subglobosis vel angulosis, 26-29 × 20-24, pallide brunneis, episporio tenui, minute tuberculato donatis; soris teleutosporiferis amphigenis, nigris, erumpentibus; teleutosporis cuneato-ellipticis, 38-50 × 20-24 superne rotundatis vel obtusis, ad septum constrictis, episporio levi superne crassiusculo; pedicello hyalino, persistenti, sporâ duplo triplove longiore.

Hab. in foliis caulibusque Riddelliæ Cooperi, Tucson, Arizona, Amer. bor.

SCHIZOSPORA P. Diet. — Syll. XIV p. 361.

1. **Schizospora Anthocleistæ** P. Henn. Engl. Bot. Jahrb. 1903, p. 41. — Maculis rotundatis, fuscis dein exaridis; pycnidiis lageniformibus, ca. 250 μ. longis; pseudoperidiis rotundato-dispositis, epiphyllis, utrinque primo subhemisphæricis, clausis, flavo-fuscidulis, dein cupulato-apertis, contextu pseudoperidii cellulis oblongis, subclavatis v. subfusoideis, ca. 60 × 20, hyalino-fuscidulis, reticulatis; teleutosporis ellipsoideis vel ovoideis, 15-22 × 13-18, continuis, sed plerumque oblongis, subfusoideis, utrinque attenuatis obtusis, medio 1-septatis, constrictis, mox secedentibus, 40-60 × 16-20, episporio hyalino, subfuscidulo, granulato, haud pedicellatis catenulatisque. 1312

Hab. in foliis Anthocleistæ orientalis, Ost-Usambara Africæ orient. (Zimmermann).

Sect. 3. Phragmosporæ.

CHRYSOMYXA Ung. — Syll. VII p. 759, IX p. 317, XI p. 209, XII p. 319.

1. **Chrysomyxa Menziesiæ** Diet. in Bot. Jahrb. 1903, p. 627. — Soris in maculis fuscis hypophyllis, gregariis, irregulariter confluentibus et haud raro magnam partem paginæ inferioris tegentibus, exsiccatis albidis, pulvinatis, cellulis teleutosporarum 18-35 × 12-19. 1313

Hab. in foliis Menziesiæ pentandræ, Nikko Japoniæ (Kusano).

2. **Chrysomyxa albida** Kühn — Sacc. Syll. VII, pag. 461 et Notæ Mycol. in Syd. Ann. mycologic. 1903, n. 1, p. 24. *Torula Ure-*

dinis (Link?) Fr., Sacc. Mycoth. Ven. n. 359! (1874), *Oidium Uredinis* Link Sp. pl. Fungi p. 123 [?], *Oospora Uredinis* (Link?) Sacc. — Syll. IV, p. 16!

Hab. quoque in pag. inf. foliorum Rubi fruticosi var., Montello Italiæ borealis, ubi jam legeram anno 1874! et 1903 (D. Sacc. Myc. ital. n. 1105). — Adsunt uredosporæ et teleutosporæ. Incertum, an species Linkiana huc spectet, quod tamen maxime probabile. Præter Germaniam, Italia tantum videtur hucusque speciem alere.

3. **Chrysomyxa Cassandræ** (Gobi) Tranz. ap. Lindr. Mycol. Mitteil. V–X, p. 3. 1902 (Act. Soc. Fenn.), *Uredo Cassandræ* Gobi. — Syll. VII, p. 844. — Teleutosoris perexiguis, 130–160 μ. diam., subaurantiis, hypophyllis; mycelio hyalino; teleutosporis hyalinis, initio 1-cellularibus, tandem 3–4-cellularibus, 60–70 μ. long., cellulis globoso-quadrangularibus 15–25 × 11–16; sporidiolis subglobosis, 4,5 μ. diam., sterigmatibus clavatis, 22 × 4–5 (Lindroth l. c.).

Hab. in foliis Cassandræ calyculatæ, Karelia Rossiæ.

4. **Chrysomyxa Woronini** Tranzsch. in Centralbl. f. Bakter. n. Parass. 1903, II Abt., Bd. XI, p. 106. (Absque diagnosi). 1314

Hab. in foliis Ledi palustris in Rossia.

COLEOSPORIUM Lév. Syll. VII p. 751, IX p. 317, XI p. 208, XIV p. 362, XVI p. 316.

1. **Coleosporium thomeense** P. Henn. in Bot. Ergebn. der Kunene Sambesi Expedit. p. 158 (1902). — Maculis flavo-fuscidulis; soris uredosporiferis hypophyllis sparsis, pulvinatis, epidermide pallida fissa tectis; uredosporis ovoideis vel ellipsoideis, intus flavo-fuscidulis, 30–35 × 16–19, episporio aculeato-verrucoso; soris teleutosporiferis sparsis vel gregariis hypophyllis, ceraceis flavo-aurantiacis, discoideo-applanatis, rotundato-angulatis, ca. 0,6 mm. diam.; teleutosporis clavatis, curvulis, primo continuis, intus flavo-brunneis, dein 3-septatis, 60–75 × 17–20, apice rotundato-incrassatis; promycelio filiformi, sporidiolis ellipsoideis hyalinis. 1315

Hab. in foliis Vernoniæ spec. in insula S. Thomé Africæ Austr.

2. **Coleosporium Verbesinæ** Diet. et Holw. in Bot. Gaz. 1901, p. 337. — Soris sparsis v. in greges irregulares congestis, hypophyllis; uredosporiferis luteo-aurantiacis, teleutosporiferis pallide rubris; uredosporis elliptico-globosis, 26–33 × 23–26, episporio verrucoso hyalino donatis; teleutosporis cylindraceis, 130 × 12–18, apice conicis. 1316

Hab. in foliis Verbesinæ virgatæ, Rio Hondo cañon, pr. urbem Mexico et Cuernavaca in Mexico.

3. **Coleosporium anceps** Diet. et Holw. in Bot. Gaz. 1901, p. 337. 1317
— Soris uredosporiferis punctatis, sparsis vel in greges circulares dispositis, hypophyllis, in sicco albidis; uredosporis ellipsoideis, oblongis vel globosis, 17-25 × 15-20, tuberculis longe cylindraceis donatis; soris teleutosporiferis hypophyllis in maculis luteo-brunneis, in greges irregulares v. circulares dispositis, melleis, viscosis; teleutosporis cylindraceo-clavatis, 90 × 18-25 4-cellularibus; pedicello 60-70 μ. longo; sporidiolis subcylindraceis, 24-30 × 12-15.

Hab. in foliis Verbesinæ sphærocephalæ, Chapala, Mexico. 1318

4. **Coleosporium paraphysatum** Diet. et Holw. in Bot. Gaz. 1901, p. 337. — Soris hypophyllis in maculis luteis vel pallide brunneis, parvulis, sparsis; uredosporis oblongo-ellipsoideis v. clavatis, sparse verrucosis, 26-43 × 17-24; teleutosporis diu ellipsoideis continuis, dein cylindraceo-clavatis, 1-septatis, 45-65 × 17-22; paraphysibus filiformibus.

Hab. in foliis Liabi discoloris, Chapala, Mexico.

5. **Coleosporium Plumieræ** Pat Champ. de la Guadeloupe ser. III, in 1319
Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Maculis amphigenis, sparsis vel confluentibus, subrotundis vel angulosis, rubris, 1-3 mm. diam.; soris uredosporiferis hypophyllis, convexis, luteis, 350-500 μ. diam., initio velatis dein erumpentibus, pulverulentis; uredosporis breve catenulatis, rotundatis, ovoideis, angulosis, minute verruculosis, 30-40 × 20-30, episporio hyalino, luteolis; soris teleutosporiferis luteo-aurantiacis, minoribus; teleutosporis aurantiacis, superne obtusis, inferne attenuatis transverse 3-septatis 60-85 × 20.

Hab. in pag. inf. foliorum Plumieræ albæ, Guadalupa Americæ sept.

6. **Coleosporium Actææ** Karst. Fungi nov. Loennb. 1904, p. 6 (Finska Vetensk. Soc.). — Soris uredosporiferis hypophyllis, minutis, rotundatis vel irregularibus, sparsis vel sæpius in parvos greges congestis, haud raro confluentibus, flavo-rufis; uredosporis in eodem soro difformibus, breviter catenulatis, mox secedentibus rotundatis vel oblongato-clavatis, subinde angulatis, aurantio-flavis. 1320

Hab. in foliis Actææ rubræ in regione Baicalensi (O. A. F. Lönnbohm).

7. **Coleosporium Campanulæ** (Pers.) Lév. — Syll. VII, p. 753. Huc

spectat *Cæoma Moroti* Poir. et Har. in *Campanula rotundifolia* nec *Cardamine* lectum. Cfr. Tranzs. Ann. Mycol. 1904, p. 157.

PHRAGMIDIUM Link — Syll. VII p. 742, IF p. 315, XI pag. 206, XIV p. 809, XVI p. 779, 1150.

1. **Phragmidium occidentale** Arthur, Plantæ Bakerianæ, fasc. II fungi p. 3. — Maculis pallide luteolis; æcidiis hypophyllis, rotundatis 1 mm. diam.; æcidiosporis concatenatis, aurantiacis, rotundato-ellipticis, 24-30 × 19-24; paraphysibus curvulis, hyalinis; soris uredosporiferis et teleutosporiferis gregariis; uredosporis obovatis, echinulatis, superne minime papillatis, 18-22 × 26-28; teleutosporis cylindraceis, fere nigris, 5-7-septatis, tuberculatis, 85-110 μ. longis, apice rotundatis, superne papilla conica subhyalina donatis; pedicello teleutospora longiore inferne incrassato subhyalino. 1321

   Hab. in foliis Rubi Nutkani prope Pagosa Peak, Sonth Colorado Amer. bor.

2. **Phragmidium heterosporum** Diet. in Bot. Jahrb. 1903, p. 626. — Soris hypophyllis, sparsis, minutis; uredosporiferis aureis, teleutosporiferis nigris vel griseis; uredosporis clavatis vel piriformibus, 25-44 × 11-17, episporio incolorato asperulo indutis, paraphysibus arcuatis circumdatis; teleutosporis plerumque bi-usque quadrilocularibus, ad septa constrictis 57-90 × 21-25, episporio levi, sordide brunneo indutis, maturis statim germinantibus; pedicello usque 60 μ. longo, interdum inflato suffultis vel sine pedicello. 1322

   Hab. in foliis Rubi trifidi, Ito in prov. Izu Japoniæ (Kusano).

3. **Phragmidium griseum** Diet. in Bot. Jahrb. 1902, p. 49. — Soris in maculis violaceis hypophyllis, mediocribus, sparsis vel irregulariter congestis, uredosporiferis aurantiacis, teleutosporiferis atris, mox griseis, pulvinatis; uredosporis obovatis vel rarius subglobosis, 21-29 × 17-20, verruculosis, poris germinationis numerosis, magnis instructis; teleutosporis 1-4-locularibus, ad septa interdum constrictis, episporio levi, sordide brunneo, apice modice incrassato indutis, 75 × 20-28, vertice rotundatis vel in papillam conoideam hyalinam protractis, pedicello longo crasso, firmo suffultis. 1323

   Hab. in foliis Rubi incisi, in prov. Kozuké Japoniæ (Kusano).

4. **Pragmidium Barnardi** Plowr. et Wint. — Syll. VII, p. 746. — var. **pauciloculare** Diet. in Bot. Jahrb. 1902, p. 49. — Teleutosporis 3-6 plerumque 4-locularibus; cetera ut in forma typica. 1324

Hab. In foliis Rubi parvifolii, in prov. Kozuké Japoniæ (Kusano).

5. **Phragmidium affine** Syd. Ann. Mycol. 1904, p. 29. — Soris uredosporiferis hypophyllis, maculis minutis flavis 1–2 mm. diam. insidentibus, sparsis, minutis, flavis; uredosporis globosis, subglobosis vel ellipsoideis, verruculoso-echinulatis, hyalino-flavidis, 22-27 × 18-24; soris teleutosporiferis hypophyllis, singulis interdum etiam epiphyllis, sparsis, minutis, ca. 0,8–1 mm. diam. pulverulentis, atro-brunneis; teleutosporis oblongis, typice 2-septatis, rarissime 1- vel 3-septatis, ad septa ut plurimum non constrictis, utrinque rotundatis, apice verruculoso-tuberculatis, dilute brunneis 35–50 × 20-25, rarius 3-septatis, usque 56 μ. longis, episporio usque 3 μ. crasso; pedicello hyalino, usque 50 μ. longo, crasso, basim versus leniter attenuato. 1325

Hab. in foliis vivis Potentillæ Blaschkeanæ, Lisson in California, Bauf in Canada, Amer. bor.

6. **Phragmidium Potentillæ-canadensis** Dietel in Hedw. 1903, p. (179). — Soris hypophyllis minutis in maculis purpureis, brunneis vel flavis; uredosporis ellipsoideis, 18-22 × 15-17, episporio tenui verruculoso incolorato vestitis, contextu aureo; soris teleutosporiferis cinnamomeis; teleutosporis 2-4-cellularibus, clavatis v. elongato-ellipsoideis, interdum curvatis, usque 100 μ. longis, 23–34 μ. latis, superne rotundatis vel rarius conoideis, episporio flavo-brunneo vel dilute castaneo, apice plerumque modice incrassato indutis, pedicello usque 70 μ. longo suffultis. 1326

Hab. in foliis Potentillæ canadensis in America bor.

7. **Phragmidium Andersoni** Shear in Bull. of the Torr. Bot. Club. 1902, pag. 453. — Soris amphigenis, leniter pulvinatis, luteolis, sparsis abundantibusque, 200-400 μ. diam.; teleutosporis oblongo-cylindraceis, dense tuberculato-rugosis, fere nigris, 60-75 × 32-34, bi-quadri-septatis, papilla apicali subhyalina, raro obscura, donatis; pedicello hyalino 60-105 μ. longo, fistuloso, ruguloso incrassato, 15-20 μ. crasso. 1327

Hab. in foliis Pontentillæ fruticosæ, Amer. bor.

8. **Phragmidium Ivesiæ** Syd. in Ann. Mycol. I, 1903, p. 329. — Soris uredosporiferis amphigenis, plerumque hypophyllis, maculis nullis vel indeterminatis pallescentibus insidentibus, sparsis, minutis, punctiformibus, pulverulentis, dilute brunneis; uredosporis globosis vel subglobosis, rarius ellipsoideis, echinulato-verruculosis, hyalino-flavidis, 22–27 × 20-25, episporio ca. 2,5 μ. crasso; soris 1328

teleutosporiferis amphigenis, eisdem maculis insidentibus, sparsis, minutis, pulverulentis, obscure brunneis; teleutosporis ellipsoideis vel oblongis, apice rotundatis, non incrassatis, basi rotundatis, typice 2-septatis, rarissime 3-septatis, ad septa ut plurimum non constrictis, apice parce et minutissime tuberculatis alibi levibus, melleis, tandem flavo-brunneis, 40-50 × 22-34 rarius usque 54 μ. longis, episporio ca. 3 μ. crasso; pedicello hyalino, usque 45 μ. longo, crasso, basim versus attenuato, in aqua tandem intumescente.

Hab. in foliis vivis Ivesiæ unguiculatæ in California (G. Engelmann).

PUCCINIASTRUM Otth — Syll. p. 762, IX p. 318, XIV p. 363, XVI p. 319.

1. **Pucciniastrum Castaneæ** Diet. in Hedw. 1902, p. (178). — Soris 1329
uredosporiferis hypophyllis sparsis, minimis, epidermide circumvallatis v. semitectis; uredosporis obovatis, 15-20 × 10-14, episporio hyalino echinulato donatis, paraphysibus clavatis circumvallatis; soris teleutosporiferis amphigenis subepidermicis, melleis v. cinnamomeis, parvis, sparsis vel confertis; teleutosporis 1-4 vel pluriloculariibus, 21-37 μ. long., singulis cellulis 5-12 μ. latis, flavidulis, apice non incrassatis.

Hab. in foliis Castaneæ vulgaris var. japonicæ, Nikko Japoniæ (Nishida).

2. **Pucciniastrum Boehmeriæ** (Diet.) Syd. Ann. Mycol. 1903, p. 19, 1330
Uredo Boehmeriæ Diet. in Engl. Jahrb. XXVIII, p. 290 (1900). — Soris uredosporiferis hypophyllis, minutis, pallide ochraceis, pseudoperidio hemisphærico inclusis; uredosporis ovatis v. ellipsoideis, echinulatis, subhyalinis, 18-24 × 13-18; soris teleutosporiferis hypophyllis, maculis indeterminatis brunneis insidentibus, sparsis vel laxe aggregatis, subepidermicis, minutissimis, ochraceis vel ochraceo-fuscis; teleutosporis plerumque 1-4-locularibus, vario modo in cellulas divisis, 18-36 × 14-20, hyalino-flavescentibus, levibus non incrassatis.

Hab. in foliis vivis Boehmeriæ bilobæ, japonicæ, spicatæ multis locis, in Japonia.

3. **Pucciniastrum Kusanoi** Diet. in Bot. Jahrb. 1903, p. 629. — Soris 1331
uredosporiferis hypophyllis sparsis, minimis, 8-9 μ. diam., pseudoperidio hemisphærico inclusis; uredosporis obovatis v. ellipsoideis, 18-25 × 13-17, episporio incolorato, echinulato præditis; soris

teleutosporiferis indeterminatis, cinnamomeis; teleutosporis uni-usque quadrilocularibus, confertis, globosis vel mutua pressione angularibus irregularibusve, 20–25 μ. diam., episporio levi dilute brunneo indutis.

Hab. in foliis Clethræ barbinervis, Swaki Japoniæ (Kusano).

TRIPHRAGMIUM Link. — Syll. VII p. 768, IX p. 318, XI p. 209, XVI p. 322 *).

1. **Triphragmium Ulmariæ** (Schum.) Link. — Syll. VII, p. 768. — var. 1332
alpinum Lagher. in Vestergr. Myc. rar. selecti Bot. Not. 1902, p. 175. — A typo differt absentia status secundarii Uredinis et soris teleutosporarum maximis, nervincolis (eadem forma ut in statu primario Uredinis).

Hab. in foliis Ulmariæ pentapetalæ in regione alpina ad Strömsmo, Tromsoe, Norvegia.

2. **Triphragmium Nishidanum** Diet. in Hedw. 1902, p. (177). — Soris 1333
minutis sparsis castaneis hypophyllis, primo tectis, deinde nudis, pulverulentis; teleutosporis subglobosis, 40-50 μ. latis, ad septa non vel vix constrictis, poro solitario laterali in quaque cellula instructis, castaneis, grosse tuberculatis, breviter pedicellatis.

Hab. in foliis Astilbes sinensis, var. albifloræ, Nikko Japoniæ (Nishida).

HAPALOPHRAGMIUM Syd. in Hedw. 1901, p. (64). — Syll. XVI p. 1121.

1. **Hapalophragmium Derridis** H. et P. Syd. in Hedw. 1901, p. (64). 1334
— Soris uredosporiferis amphigenis, plerumque hypophyllis, minutis, punctiformibus, sparsis vel compluribus dense aggregatis confluentibusque et tunc 1-2 mm. diam., cinnamomeis compactiusculis, maculis purpureo-brunneis v. obscure brunneis plerumque insidentibus; uredosporis globosis, subglobosis, ovatis vel piriformibus, membrana in sporis globosis æquabili crassitudine, in sporis piriformibus apice incrassata, grosse aculeata, flavo-brunnea, poris germinationis binis (ut videtur), 25–30 μ. diam. v. 27-36 × 19-25; soris teleutosporiferis amphigenis, plerumque hypophyllis, maculis minutis minusque manifestis insidentibus, sparsis, minutis,

*) Cfr. *Milesi* e *Traverso*, Saggio di una monografia del genere *Triphragmium* in Ann. Mycol. 1904, p. 143-156, tab. V, ubi species hucusque cognitæ describuntur et figuris col. illustrantur.

punctiformibus, non confluentibus, e compactiusculo demum subpulverulentis, flavo-brunneis; teleutosporis radiatim 3-cellularibus, levibus, pallide flavo-brunneis, totis 38-58 × 27-38, quaque cellula ca. 28–38 × 14-22, membrana tenui, apice non incrassata, cellula apicali epedicellata, duabus basalibus pedicello communi hyalino, apice crassiusculo deorsum attenuato 30-50 μ. longo suffultis; poris germinationis ad apicem v. juxta apicem cujusque cellulæ sitis.

Hab. in foliis vivis Derridis uliginosæ, Tanga in Africa trop. (Heinsen) et in insula Nossi-Bé (Hildebrandt).

2. **Hapalophragmium setulosum** (Pat.) Syd. in Ann. mycol. 1904, p. 350. Ita vocandum, teste cl. Sydow l. c., *Triphragmium setulosum* Pat. — Syll. IX, p. 318 — ex eo quod articuli basales teleutosporarum sint bini nec singulus et sori valde compacti.

Sect. 4. Dictyosporæ.

RAVENELIA Berk. — Syll. VII p. 770, IX p. 318, XI p. 210, XIV p. 363, XVI p. 323 *).

1. **Ravenelia siliquæ** Long, Bot. Gaz. 1903, p. 118, fig. 7. — Soris 1335
subcutaneo-erumpentibus; uredosoris orbicularibus, amplis, 1–5 mm., diam., cinnamomeo-brunneis, epidermide rupta elevata cinctis, sparsis vel plus minus confluentibus; uredosporis fulvis, episporio dense verrucoso, oblongo-ovoideis v. ovato-fusoideis, 20–33 × 13-17, sæpius 30 × 16, poris germ. 8, in binas series juxta æquatorem quaternatis; paraphysibus rarissimis, clavatis, 43 × 7, hyalinis, apice fulvellis.

Hab. in leguminibus Acaciæ Farnesianæ, Etla, Oaxaca Mexico (Holway). — Teleutosporæ nullæ visæ. Cl. Long legumen Acaciæ pro siliqua habet!

2. **Ravenelia fragrans** Long, Bot. Gaz. 1903, p. 123, fig. 14. — Ure- 1336
dosoris subcutaneo-erumpentibus, primariis typice dense confluentibus foliaque ramulosque inflantibus, secundariis subsparsis vel confluentibus, fulvis; uredosporis crasse tunicatis, sporis primarii angulosis, ultimis ovoideo-globosis, dense spinulosis, 17-23 × 13-17.

*) Cfr. illustrationem hujus generis iconibus dilucidatam, C. W. H. Long in Bot. Gaz. 1903, p. 111-133 (ad species boreali-americanas).

poris germ. pluribus; paraphysibus copiosissimis clavatis, 40-50 × 5-12, hyalinis, fulvo-capitatis; teleutosoris amphigenis et petiolicolis, minutis, vix 1 mm. diam., atro-brunneis; teleutosporarum capitulis castaneo-brunneis, globulosis, 70-85 × 30-35, papillatis; teleutosporis 5-6 in sectione diam., papillis hyalinis brevibus 3-4 supra præditis, 33-38 × 17-20; cellulis cystoideis ovoideo-oblongis, hyalinis, infra totum capitulum pendulis; pedicello hyalino, composito, brevi, deciduo.

Hab. in foliis, petiolis ramulisque Mimosæ fragrantis, Texas Amer. bor. (Aussin). — Affinis *R. expansæ*.

3. **Ravenelia Longiana** Syd. in Hedw. 1901 p. (128). — Soris ure- 133
dosporiferis amphigenis, maculis nullis v. obsoletis, pallidis insidentibus, minutis, sparsis v. aggregatis confluentibusque, pulverulentis, pallide brunneis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavo-brunneis, 20-27 µ. diam.; soris teleutosporiferis amphigenis, minutis, sparsis vel plerumque in greges ca. 2 mm. latos aggregatis et confluentibus, pulverulentis, atris; capitulis teleutosporarum irregulariter rotundatis, hemisphæricis, levibus e sporis unicellularibus 5-7 in omni directione compositis, castaneo-brunneis, 55-90 µ. diam.; sporis unicellularibus 14-19 µ. diam.; cellulis cystoideis numerosis, globosis v. subglobosis, hyalinis 14-19 × 14-16, vix persistentibus; hyphis pedicellum constituentibus discretis haud conjunctis.

Hab. in foliis vivis Cassiæ Rœmerianæ, Austin, Texas. 133

4. **Ravenelia spinulosa** Diet. et Holw. in Bot. Gaz. 1901, pag. 336. — Soris amphigenis, erumpentibus, uredosporiferis, ochraceis; uredosporis ellipsoideis vel fere globosis, 18-23 × 16-19, pallide brunneis, spinulis brevissimis vestitis, paraphysibus intermixtis; soris ex capitulis teleutosporarum nigris, hemisphæricis, 75-110 µ. diam., 7-9 sporis, pallide brunneis formatis; sporis 11-17 µ. latis, 1-cellularibus, apiculo usque 8 µ. long.

Hab. in foliis Cassiæ multifloræ, Oaxaca in Mexico.

5. **Ravenelia Usambaræ** Syd. in Ann. Mycol. I, 1903, p. 331. — Soris 133
teleutosporiferis epiphyllis, in greges rotundatos ca. 3-5 mm. diam. concentrice dispositis, minutis, epidermide fissa cinctis, pulverulentis, obscure brunneis; uredosporis immixtis subglobosis vel late ellipsoideis, echinulatis, brunneolis, ca. 19-22 × 14-18; capitulis teleutosporarum rotundatis, 75-120 µ. diam., dilute brunneis e 6-9-sporis in omni directione compositis, tuberculis minutis vix prominulis præditis, facile in sporas secedentibus; sporis unicellula-

ribus, apice incrassatis usque 6 μ., 27-33 × 13-19; pedicello polyhyphoideo, hyalino; cystidiis globosis, hyalinis, 12-20 μ. diam.

Hab. in foliis vivis Cassiæ goratensis in Usambara Afr. or. (C. Holst).

6. **Ravenelia portoricensis** Arthur Bull. Torr. Bot. Cl. 1904, p. 5. 1340
— Soris uredosporiferis amphigenis, circinantibus in greges circ. 3 mm. latos, subepidermicis, pulverulentis, fulvis; uredosporis ellipsoideis, 24-29 × 16-18, episporio 2,5 μ. lato, luteo-aurantiaco, dense echinulato, poris 8, sparsis; paraphysibus nullis, teleutosporis non visis.

Hab. in foliis Cassiæ emarginatæ, Ponce, Porto Rico (A. A. Heller) Amer.

7. **Ravenelia papillifera** Syd. in Ann. Mycol. I, 1903, p. 330. — Soris 1341
uredosporiferis amphigenis, sparsis v. irregulariter confluentibus, 0,5-1 mm. diam., pulverulentis, ochraceo-cinnamomeis; uredosporis subglobosis vel ellipsoideis, echinulatis, dilute brunneis, 18-30 × 16-22, episporio ca. 2-2,5 μ. crasso, poris germinationis numerosis sparsis instructis; paraphysibus paucis, capitato-clavatis v. clavatis, hyalinis ca. 40 μ. longis, 8-14 μ. crassis; soris teleutosporiferis amphigenis, sparsis, minutis, pulverulentis, atris; capitulis teleutosporarum rotundatis, castaneo-brunneis, 75-110 μ. diam. e 5-7-sporis in omni directione compositis; sporis singulis papilla hyalina 2-3 μ. alta præditis, 14-22 μ. diam., apice usque 5 μ. incrassatis; cystidiis hyalinis, globosis, pendulis, eodem numero quo sporis; pedicello brevi, hyalino, deciduo composito.

Hab. in foliis vivis Cassiæ Lindheimerianæ prope Austin in Texas Americæ bor.

8. **Ravenelia Baumiana** P. Henn. in Bot. Ergebn. der Kunene Sam- 1342
besi Expedit. pag. 157 (1902). — Maculis flavis vel ferrugineis; soris uredosporiferis amphigenis sparsis v. aggregatis, epidermide fissa tectis, ferrugineis; uredosporis subglobosis, ellipsoideis vel ovoideis, flavo-brunneis, 18-22 × 14-18, episporio minute verrucoso; soris teleutosporiferis plerumque epiphyllis orbiculariter dispositis, minutis castaneis, subpulverulentis; capitulis subglobosis, 90-120 μ. diam., castaneis, echinatis e 16-20 sporis compositis; sporis polyhedricis subcutaneis, 14-20 × 14-18, aculeis capitulatis, rectis vel curvulis, hyalino-fuscidulis, 7-9 × 5-6; pedicello nullo; cellulis appendicularibus paucis, subglobosis vel ovoideis, hyalinis 18 μ. diam.

Hab. in foliis Cassiæ goratensis, Humbe Afr. austr.

9. **Ravenelia macrocarpa** Syd. in Ann. Mycol. I, 1903. p. 329. — Soris 1343
uredosporiferis amphigenis, plerumque hypophyllis, maculis obsoletis flavescentibus vel brunneolis insidentibus, sparsis vel paucis associatis, minutis, punctiformibus, flavo-brunneolis, 16-30 × 14-22; soris teleutosporiferis amphigenis, plerumque hypophyllis, sparsis, raro tantum paucis associatis, minutis, punctiformibus, atro-brunneis; capitulis teleutosporarum globosis vel subglobosis, læte castaneis, levibus, 80-140 μ. diam. e sporis 8-10 in omni directione compositis; sporis omnibus unicellularibus 20-27 μ. latis, apice usque 5 μ. incrassatis; cystidiis appendicularibus non conspicuis; pedicello hyalino brevi.

Hab. in follis Cassiæ bicapsularis in Brasilia (Sello).

10. **Ravenelia atro-crustacea** P. Henn. Fungi Amaz. I, pag. 159, 1344
Hedw. 1904. — Maculis flavo-brunneis, rotundatis: teleutosporis epiphyllis erumpentibus pulvinatis, primo epidermide fissa velatis, brunneis, dein subcrustiforme confluentibus, aterrimis versiformibus; capitulis subhemisphæricis vel irregulariter rotundatis, cinnamomeis, dein atris, levibus, plerumque 4-6-cellularibus, 45-70 μ. d.; cellulis continuis ovoideis v. subtriquetris ca. 20-28 × 18-25, cystidiis ca. 4 subglobosis, inflatis, ca. 25-30 μ. diam.; pedicello hyphis plurimis composito, hyalino fuscidulo usque ad 50 × 6-7.

Hab. in foliis Swartziæ spec., Rio Juruá, Miry, Amer. merid. — Habitus quasi *Fumaginis*.

11. **Ravenelia Schweinfurthii** Syd. in Ann. Mycol. I, 1903, p. 330. 1345
— Soris uredosporiferis amphigenis, maculis irregularibus insidentibus, sparsis vel paucis laxe aggregatis, minutissimis, punctiformibus, flavo-brunneis; uredosporis subglobosis v. ellipsoideis, breviter echinulatis, flavo-brunneis, 16-20 × 11-16; soris teleutosporiferis conformibus, obscurioribus; capitulis teleutosporarum rotundatis, 55-105 μ. diam., castaneo-brunneis, levibus e 4-6 sporis in omni directione compositis; sporis unicellularibus apice circ. 4 μ. incrassatis, 13-28 μ. latis; pedicello deciduo, hyalino; cystidiis numerosis, hyalinis, globosis, 22-30 μ. diam.

Hab. in foliis vivis Entadæ sudanicæ, Duggu et Doggudu Africa centr. int. (G. Schweinfurth).

12. **Ravenelia Cæsalpiniæ** Arthur Bull. Torr. Bot Cl. 1904, pag. 5. 1346
— Pycnidiis sæpe epiphyllis, subepidermicis, in greges congestis, depressis, 60-100 × 15-18, luteo-aurantiacis, dein brunneis; soris uredosporiferis sæpe hypophyllis subcuticularibus congestis dein irregulariter sparsis, subrotundis vel oblongis, diu luteolis

dein ochraceis; uredosporis obvato-cuneatis, 28-35 × 16-23; episporio tenui, 1,5-2 μ. lato, echinulato; poris germinationis 4; paraphysibus superne clavatis, fere hyalinis, membrana 1-1,5 μ. crassa; teleutosporis non visis.

Hab. in foliis Cæsalpiniæ spec. prope Bayamon, Porto Rico, Amer.

13. **Ravenelia Leucænæ** Long, Bot. Gaz. 1903, p. 126, fig. 23. — 1347
Soris subcutaneis plerumque epiphyllis, parce quoque petiolicolis; uredosoris cinnamomeo-brunneis, exiguis, 0,2-0,6 mm., ellipticis, epidermide rupta cinctis; uredosporis pallide brunneis, deorsum sæpe subhyalinis, oblongo-cylindraceis, rarius oblongis, sparse spinulosis, 35-50 × 15-18; poris germ. 4, æquatorialibus vel infra-æquatorialibus; paraphysibus copiosis, subhyalinis, apice fulvis subclavato-capitatis, tenui-tunicatis, sæpe collapsis, 40-50 × 18; teleutosoris castaneis, minutis, 0,4-0,6 mm. diam., epidermide fissa cinctis; teleutosporarum capitulis castaneis, orbicularibus, 65-90 × 35-40, papillatis, teleutosporis in sect. diametr. 5-6, papillis hyalinis 4-7 × 2-3 coronatis; cellulis cystoideis oblongo-ovoideis basi compressis, peripheric is, hyalinis; pedicellis brevibus hyalinis, deciduis.

Hab. in foliis Leucænæ diversifoliæ et sp. ind. Etla, Oaxaca, Iguala Mexici. — Affinis *R. goyazensi* sed papillis brevibus, hyalinis, soris minutis etc. diversa.

PLEORAVENELIA Long, Bot. Gaz. 1903, p. 127 (Etym. *pleos* plenus et *Ravenelia* ob teleutosporas interiores septatas). — A gen. affini *Ravenelia* differt teleutosporis capituli interioribus bicellularibus (nec unicellularibus). Æcidia adsunt ut in *Ravenelia*, seu pseudoperidio instructa *).

1. **Pleoravenelia similis** Long, Bot. Gaz. 1903, p. 128, fig. 21. — 1348
Soris in maculis effusis flavicantibus amphigenis, punctiformibus usque 0,5 mm., diam., subcutaneis, in epiphyllo copiosioribus et sæpe late confluentibus; uredosoris paucis, ochraceis, minutis; ure-

*) Ad hoc novum genus pertinent quoque, præter sp supra de criptas: *P. levis* (Diet. et Holw.) Long l. c. p. 127, fig. 17; *P. epiphylla* (Schw.) Long l. c. pag. 123, f. 18; *P. Indigoferæ* (Transz.) Long l. c. pag. 129, fig. 19; *P. Brongniartiæ* (Diet. et Holw.) Long l. c. p. 120, f. 20, nec non *P. Hieronymi* (Speg.) Long; *P. Mac-Owaniana* (Pazschke) Long.; *P. glabra* (Kalchbr. et Cooke) Long et *P. Tephrosiæ* (Kalchbr.) Long l. c. p. 127.

dosporis brunneis, tunica crassa atro-brunnea spinulosa, globoso-ovoideis, 20-28 × 17-23; poris germ. 8-12 prope æquatorem; paraphysibus nullis; teleutosoris atro-brunneis; teleutosporarum capitulis levibus inæqualiter globulosis, ovoideis, castaneis, 68-135 μ., sæpius 100 μ. diam.; teleutosporis in sect. diam. 6-8; cellulis cystoideis hyalinis peripheriçis in pedicellum decurrentibus; pedicello hyalino, composito, brevi.

Hab. in foliis Brongniartiæ, Guadalajara Mexici (Holway). — A *P. epiphylla* recedit numero pororum germ. et uredosporis brunneis.

2. **Pleoravenelia Talpæ** Long, Bot Gaz. 1903, pag. 130, fig. 22. — 1349
Soris subcutaneis, amphigenis, confertis; uredosoris parcis, ochraceis, epidermide fissa cinctis, minutis; uredosporis brunneis, tenuitunicatis, verrucosis ovoideo-subglobosis, solite inæquilateris, 25-32 × 18-22, sæpius 30 × 20; poris germ. æquatorialibus, 4-6, vix manifestis; paraphysibus nullis; teleutosoris minutis, atro-brunneis, numerosis, epidermide rupta cinctis; teleutosporarum capitulis atro-brunneis, irregulariter globosis v. ovoideis, minute sed distincte verrucosis, 65-115 × 35-40, typice 85 μ. diam., teleutosporis in sect. diam. 4-8, verrucis irregulariter sparsis, semihyalinis coronatis; cellulis cystoideis peripheriçis, hyalinis, in pedicellum compositum brevem hyalinum decurrentibus.

Hab. in foliis Tephrosiæ Talpæ, Oaxaca Mexico (Holway). — A *P. epiphylla* recedit capitulis verrucosis, uredosporis brunneis; a *P. Tephrosiæ* verrucis minoribus, uredosporis majoribus etc.

NEORAVENELIA Long, Bot. Gaz. 1903, p. 131 (Etym. *neos* novus et *Ravenelia*). — Ab affini gen. *Ravenelia* differt æcidiis pseudoperidio carentibus. Teleutosporæ omnes 1-cellulares ut in *Ravenelia*, qua nota differt quoque a *Pleoravenelia*.

1. **Neoravenelia Holwayi** (Diet.) Long l. c. p. 131, fig. 24, *Ravenelia Holwayi* Diet. — Syll. XI, p. 216 — Hucusque, ut videtur, unica species novi generis.

UREDINACEÆ INFERIORES

PERIDERMIUM Lév. — Syll. VII p. 835, IX p. 326, XI pag. 222, XVI p. 349.

1. **Peridermium Holwayi** Syd. Ann. Mycol. 1903, p. 19. — Pseudo- 1350

peridiis hypophyllis, biseriatis, sine maculis, primitus subrotundatis clausis, demum vertice irregulariter disrumpentibus, apice laceratis, albis; cellulis pseudoperidii forma et magnitudine variis; æcidiosporis plerumque globosis v. subglobosis, rarius ovato-ellipsoideis, confertim verrucosis, hyalino-flavescentibus, 19-24 μ. diam.

Hab. in acubus vivis Pseudotsugæ Douglasii, Glacier, Columbia britannica (Holway).

2. **Peridermium ornamentale** Arthur in Bull. Torr. Bot. Cl. 1901, pag. 665. — Pseudoperidiis foliicolis biseriatis hypophyllis, cylindraceis, 1–2 mm. longis, initio luteo-pallidis; æcidiosporis obovatis, ellipticis vel globulosis, 13-17 × 20-26, episporio tenui verruculoso. 1351

Hab. in foliis Abietis lasiocarpæ, Mount Paddo, Washington Amer. bor.

3. **Peridermium conorum** Thüm. — Syll. VII, pag. 836. — Observante cl. Oud. in Revue Myc. 1902, species nascitur in Abiete excelsa, nec A. pectinata.

RŒSTELIA Rebent. — Syll. VII p. 833, XI p. 222, XVI p. 348.

1. **Rœstelia fimbriata** Arthur in Bull. Torr. Bot. Cl. 1901, p. 666. — Pycnidiis epiphyllis, in maculis luteis insidentibus, prominentibus, nigrescentibus; æcidiosoris hypophyllis gregariis vel plerumque confluentibus; pseudoperidiis dehiscentibus, in longas lacinias desinentibus; sporidiis subglobosis 32-45 μ. diam., castaneo-brunneis, medio incrassatis, verrucosis. 1352

Hab. in foliis Sorbi cujusdam, in montibus Elk, Wyoming Amer. bor.

2. **Rœstelia Nelsonii** Arthur in Bull. Torr. Bot. Cl. 1901, p. 665. — Pycnidiis epiphyllis, in maculis luteis insidentibus, congestis, prominentibus, nigrescentibus, numerosis; æcidiosoris hypophyllis congestis; pseudoperidiis 2–4 mm. long., rectis v. curvulis, dehiscentibus, apice subacutis, clausis; æcidiosporis globosis, 24–30 μ. diam., castaneo-brunneis, minute verrucosis v. levibus. 1353

Hab. in foliis Amelanchieris alnifoliæ, Laramie Hills, Wyoming Amer. bor. — Stat. æcid. *Gymnosporangii Nelsoni* Arth.

3. **Rœstelia solenoides** Diet. in Bot. Jahrb. 1903, p. 631. — Pseudoperidiis hypophyllis, in maculis flavo-brunneis perpaucis consociatis, tubiformibus, flavo-brunneis, ore angustato præditis, usque 3 mm. longis; æcidiosporis irregulariter globosis v. late ellipsoideis 18–21 μ. diam., usque 24 μ. longis, episporio flavo-brunneo, dense verrucoso tenui indutis. 1354

Hab. in foliis Piri Ariæ Ehrb. var. kamaonensis, in prov. Iwaki Japoniæ (Kusano).

ÆCIDIUM Pers. — Syll. VII p. 774, IX p. 319, XI p. 213, XIV p. 369, XVI p. 325.

1. **Ædidium Wedeliæ** Earle in Muhlenbergia 1901, p. 16. — Hypophyllum; maculis luteis 2-5 mm. diam.; pseudoperidiis dense congestis, luteis, brevibus, parce emergentibus, paullum laceratis, circ. 350 μ. diam., contextu cellulis polyhedricis, minute aculeatis, 30 × 20; ædidiosporis minutis, subpolygonalibus, luteis, episporio levi, circ. 16 × 12. 1355

Hab. in foliis vivis Wedeliæ carnosæ, **Mayagnez** in insula Porto Rico Amer. centr.

2. **Ædidium recedens** Arthur Bull. Torr. Bot. Cl. 1904, pag. 7. — Pycnidiis amphigenis, in greges circulares dispositis, punctiformibus, melleo-aurantiacis, immersis, subepidermidicis, globosis, 90-100 μ. diam., ostioli periphysibus 45 μ. longis; ædidiis amphigenis pustuliformibus, in circulum dispositis; pseudoperidiis evanescentibus; ædidiosporis globosis, 16-23 vel 22-29, episporio 3 μ. diam., luteo-aurantiaco, dense minuteque verrucoso. 1356

Hab. in foliis Solidaginis mollis, Callaway, Nebraska (J. M. Bates), Cypres Hills, Assiniboia Amer. bor. (J. Macoun).

3. **Ædidium incurvum** Tracy et Earle in Plantæ Bakerianæ fasc. I, fungi p. 18. — Amphigenum; maculis nullis; pseudoperidiis irregulariter congestis profunde immersis incurvis, paullulo emergentibus; cellulis striatis 40-50 × 20-25; sporis globosis vel late ovalibus, intense coloratis, episporio crasso, leviter echinulato, 40-50 × 20-25; pycnidiis non visis. 1357

Hab. in foliis Erigerontis flagellaris, Chicken Creek, Colorado Amer. bor.

4. **Ædidium dubiosum** Syd. in Hedw. 1901 p. (1). — Ædidiis hypophyllis, raro paucis etiam epiphyllis, maculis orbicularibus flavo-brunneis, 0,5-1,5 cm. diam., insidentibus, in greges orbiculares usque 1 cm. diam. laxe dispositis, flavidis, cupulatis, margine lacerato; ædidiosporis polygoniis, subhyalinis, tenuissime aculeolatis 18-27 μ. diam. 1358

Hab. in foliis vivis Senecionis mikanioidis prope Durban, Natal (Wood) et Senecionis quinquelobi, ad pedem montis Boschberg Africæ austr. (Mac Owan).

5. **Ædidium anceps** Syd. in Hedw. 1901, pag. (1). — Ædidiis hypo- 1359
phyllis, maculis flavescentibus v. flavo-brunneolis 1 cm. diam. v. confluendo irregularibus insidentibus, in greges orbiculares usque 1 cm. latos latiuscule dispositis, flavidis, cupulatis, margine lacerato; æcidiosporis globosis vel globoso-angulatis, hyalino-flavescentibus, punctatis, 13–17 μ. diam.

Hab. in foliis vivis Senecionis deltoidis ad pedem montis Boschberg Africæ austr. (Mac Owan).

6. **Ædidium incertum** Syd. in Hedw. 1901, p. (1). — Ædidiis hypo- 1360
phyllis, maculis flavo-brunneis orbicularibus subinde confluentibus 0,5-2 cm. diam. insidentibus, in greges orbiculares vel confluendo irregulares 0,5-2 cm. diam. confertim dispositis, cupulatis, flavis, margine lacerato; æcidiosporis globosis v. globoso-angulatis, hyalino-flavescentibus, punctatis, 14-18 μ. diam.

Hab. in foliis vivis Senecionis spec. ad pedem montis Boschberg Africæ austr. (Mac Owan).

7. **Ædidium Inulæ-Helenі** Constantineanu, Ann. Mycol. 1904, p. 251. 1361
— Pycnidiis in parvos greges dispositis, melleis; æcidiis hypophyllis, maculas flavas, distinctas, irregulares 1–3 mm. latas efformantibus; pseudoperidiis cupuliformibus, margine albido, revoluto, tenuissime denticulato; æcidiosporis polygoniis, isodiametricis 16,2–18,9 vel parum elongatis 17–21 × 16–18, flavescentibus, subtilissime punctatis.

Hab. ad folia Inulæ Helenii, in pratis humidis secus viam ferream prope pag. Grajduri in districtu Vaslui Romaniæ.

8. **Ædidium Helianthellæ** Arthur in New York Bot. Gard. 1902, 1362
p. 348. — Pycnidiis epiphyllis, parvulis paucisque; æcidiis hypophyllis in maculis pallidis insertis, in circulum dispositis; æcidiosporis globulosis 14-22 μ. diam., minute rugosis vel non, membrana tenui, fere hyalinis.

Hab. in foliis Helianthellæ cujusdam, Alcove, Wyoming Amer. bor.

9. **Ædidium Grindeliæ** Syd. in Hedw. 1901 p. (1) non Griffths, quia 1363
posterius (1902). — Ædidiis amphigenis, maculis flavidis insidentibus, in greges rotundatos 3–5 mm. diam. dispositis, minutis, flavis, margine inciso; æcidiosporis globosis v. angulato-globosis, punctatis, subhyalinis, 10-15 μ. diam.

Hab. in foliis vivis Grindeliæ squarrosæ, Manhattan, Kansas Americæ bor. (Kellerman). — Sec. cl. Griffiths in Bull. of the Torr. Bot. Club. 1902, p. 299, æcidiosporæ sunt leviter brun-

neæ 20-24 μ. diam., episporio crasso, minute rugoso donatæ. Hæc in Grindelia squarrosa, Columbia Amer. bor.

10. **Æcidium Galasiæ** Syd. Ann. Mycol. 1903, pag. 252. — Æcidiis hypophyllis, per totam folii superficiem æque sparsis, longe cylindraceis, margine profunde inciso, albis; æcidiosporis angulato-globosis, punctatis, pallide aurantiacis, 22-30 × 18-25. 1364

Hab. in foliis Galasiæ villosæ, prope Pirano Istriæ (L. Görz).

11. **Æcidium Clibadii** Syd. in Ann. Mycol. 1903, I, p. 333. — Æcidiis hypophyllis, maculis rotundatis brunneis 2-5 mm. diam., insidentibus, in greges rotundatos maculam explentes dispositis, primo clausis, dein breviter cylindraceis, margine inciso; æcidiosporis angulato-globosis, hyalino-flavescentibus, subtilissime verruculosis, 11-18 μ. diam. 1365

Hab. in foliis vivis Clibadii Donnell-Smithii, in Departm. Guatemala (Donnel-Smith) et Clib. asperi in Guiana gallica (Poiteau).

12. **Æcidium Carphochætes** Syd. Ann. Mycol. 1903, p. 20. — Æcidiis amphigenis, maculis irregularibus flavis plerumque insidentibus, irregulariter sparsis v. paucis aggregatis, diu globoso-clausis, tandem medio dehiscentibus, albis, pariete indistincto; æcidiosporis angulatis, verruculosis, flavescentibus, 22-30 × 16-23. 1366

Hab. in foliis Carphochætes Grahami, San Luis Potosi in Mexico (J. G. Schaffner).

13. **Æcidium Borrichiæ** Syd. in Hedw. 1901, pag. (129). — Æcidiis hypophyllis, in maculis irregularibus interdum insidentibus, sparsis, laxe gregariis vel sæpe totam foliorum superficiem obtegentibus, cupulato-cylindraceis, margine albido, recurvato, laciniato; æcidiosporis angulato-globosis, subtiliter verruculosis, subhyalinis, membrana tenui 24-30 μ. diam. 1367

Hab. in foliis vivis Borrichiæ frutescentis, Fort Morgan, Florida Amer. bor. (S. M. Tracy).

14. **Æcidium Boltoniæ** Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. — Maculis pallido luteis; pycnidiis amphigenis ceraceis, luteis; sporulis oblongo-ovatis 3-5; pseudoperidiis generaliter hypophyllis, immersis, margine irregulari; æcidiosporis pallide luteolis, subglobosis, 13-17 μ. cr., episporio tenui parce verruculoso. 1368

Hab. in foliis Boltoniæ asteroidis, Spirit Lake, Jowa Amer. bor.

15. **Æcidium Wulffiæ** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1904. 1369

— Maculis fuscidulis, obscurius zonatis, rotundatis, sparsis; æcidiis hypophyllis; pseudoperidiis aggregatis orbiculariter dispositis, minutis, alutaceis, cupulatis, contextu cellulis oblonge polyhedricis, hyalinis, ca. 30 × 15; æcidiosporis subgloboso-angulatis, 15-20 μ. hyalino-fuscidulis, levibus.

Hab. in foliis Wulffiæ spec. Rio Juruá, Juruá-Miry Amer. merid. — Forte ad *Urom. Wulffiæ* spectat.

16. **Æcidium tarapotense** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. — Maculis rotundatis vel effusis, fuscis; æcidiis gregarie sparsis, amphigenis; pseudoperidiis concentrice dispositis, minutis, rotundatis dein cupulatis, flavidis vel brunneis, contextu cellulis oblonge polyhedricis, subhyalinis, reticulatis; sporis ovoideis vel ellipsoideo-angulatis, brunneo-fuscidulis, verrucosis, 30-40 × 20-30; pycnidiis sæpe oppositis, punctiformibus, fuscis. 1370

Hab. in foliis Vernoniæ, Tarapoto, Perù, Amer. merid. — Ab *Æcid. Vernoniæ* diversum.

17. **Æcidium Patriniæ** P. Henn. Einige neue japan. Ured. III, in Hedw. 1902, pag. 21. — Maculis rotundatis, fuscidulis, brunneo cingulatis; æcidiis hypophyllis, pseudoperidiis aggregatis, cupulatis, pallide fuscidulis, contextu cellulis subgloboso-polyhedricis, hyalino-flavidulis, reticulatis, 20-30 μ. diam.; sporis subglobosis v. ellipsoideis, angulatis, 12-15 × 10-13, flavidis, levibus. 1371

Hab. in foliis Patriniæ scabiosifoliæ, Tosa Japoniæ.

18. **Æcidium Perkinsiæ** P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. 96. — Syll. XVI, p. 1121 (nomen). — Æcidiis petiolicolis v. calycicolis, incrassatis curvatisque; pseudoperidiis gregariis vel sparsis, hemisphærico-cupulatis, semiimmersis, flavido-rufis, contextu cellulis rotundato- v. oblongo-polyhedricis, subhyalinis, reticulatis, 18-24 × 16-20; æcidiosporis subglobosis v. ellipsoideis, angulatis, flavidis, intus granulatis, 15-20 μ. diam. 1372

Hab. in petiolis calycibusque Leschenaultiæ linarioidis Perth Australiæ occid.

19. **Æcidium plectroniicola** P. Henn. in Ergebn. der Kunene-Sambesi Expedit. p. 162 (1902). — Maculis fuscis, rotundatis; æcidiis hypophyllis; pseudoperidiis aggregatis cupulatis v. breve cylindraceis, margine fimbriatis ex pallido fuscidulis, contextu cellulis polyhedricis, reticulatis, hyalino-fuscidulis, 20-30 μ. diam.; æcidiosporis subgloboso-angulatis, flavido-fuscidulis, levibus, 18-20 μ. d. 1373

Hab. in foliis Plectroniæ huillensis, Longa prope Napalanka Afr. austr.

20. **Æcidium Busseanum** P. Henn. in Engl. Bot. Jahrb. 1903, p. 42. 1374
— Maculis inerassatis, explanatis, rufo-brunneis: pycnidiis epiphyllis, subdiscoideis, flavo-brunneis, nitentibus; æcidiis oppositis, effusis; pseudoperidiis subimmersis, cupulatis, pallidis, contextu cellulis oblongo-polyhedricis, reticulatis, hyalino-fuscidulis; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, 20-24 × 18-22.

Hab. in foliis Plectroniæ hispidæ, Usambara Africæ orient. (W. Busse).

21. **Æcidium Baumianum** P. Henn. in Ergebn. der Kunene-Sambesi 1375
Expedit. p. 163 (1902). — Maculis rotundatis, gregariis flavis v. fuscis exaridis; æcidiis hypophyllis circulariter dispositis v. epiphyllis sparsis singularibus; pseudoperidiis breve cylindraceis ca. 600–700 μ. altis, 250-300 μ. latis, pallidis, margine fimbriatis, contextu cellulis polyhedricis, flavidulis v. hyalinis, reticulatis; æcidiosporis subglobosis v. ellipsoideis angulatis, levibus, intus flavidulis hyalinescentibus.

Hab. in foliis Plectroniæ abbreviatæ, Habungu, Afr. austr.

22. **Æcidium Borreriæ** Pat. in Duss. Enum. champ. Guadel. 1903, 1376
p. 7. — Pseudoperidiis solitariis inæqualiter sparsis, hypophyllis, parenchymate immersis, dein emergentibus, pallidissime flavidis, 300 μ. diam., brevissimis, initio clausis dein apertis; cellulis pseudoperidii angulosis, fere achromis, verrucosis, 25 × 15; æcidiosporis globulosis v. ovoideis, pallide flavis, minute granulosis, 20 × 18, membrana tenuissima.

Hab. in foliis Borreriæ sp. herbaceæ cujusdam Basse-Terre Guadalupa (Duss). — Folia normaliter elliptica parasiti ope anguste linearia et deformia evadunt.

23. **Æcidium Ancylanthi** P. Henn. in Bot. Ergebn. der Kunene-Sam- 1377
besi Expedit. p. 161 (1902). — Maculis rotundatis, flavis v. fuscidulis; æcidiis hypophyllis; pseudoperidiis sparsis v. aggregatis, sæpe nervos sequentibus, cylindraceis, pallidis, margine fimbriatis, contextu cellulis polyhedricis, subhyalinis, reticulatis, 20-30 μ. diam.; æcidiosporis subgloboso- v. ovoideo-angulatis, levibus, intus flavidis, 16-24 × 15-22.

Hab. in foliis Ancylanthi fulgidi, Habungu, Afr. austr.

24. **Æcidium Cephalanthi-peruviani** P. Henn. Fungi Amaz. I, p. 167 1378
(Hedw. 1904). — Maculis rotundatis, rufo-brunneis ca. 1 cm. d., pycnidiis pulvinato-hemisphæricis, castaneis, gregariis; æcidiis hypophyllis oppositis; pseudoperidiis subcirculariter dispositis, cu-

pulatis, margine albidis fimbriatis, contextu cellulis oblonge polyhedricis, reticulatis, 50-60 × 20-30; æcidiosporis subgloboso-angulatis, intus fuscidulis, 10-15 µ., episporio levi hyalino.

Hab. in foliis Cephalanthi peruviani, Tarapoto in Perù Amer. merid.

25. **Æcidium Psychotriæ** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1379
1904. — Maculis subaurantiacis vel flavo-brunneis, effusis; æcidiis hypophyllis sparsis; pseudoperidiis primo semiimmersis, dein cupulatis, margine pallido, subfimbriato, contextu cellulis oblonge polyhedricis, hyalinis, reticulatis; sporis subgloboso-angulatis, 20-30 µ., intus flavido-fuscidulis, episporio usque ad 8 µ. incrassato, reticulato.

Hab. in foliis Psychotriæ spec. Cerro de Isco, Perù Americæ merid.

26. **Æcidium iquitosense** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1380
1904. — Maculis nigris effusis, pycnidiis gregariis, atris puncti formibus; æcidiis foliicolis caulicolisque deformantibus effusis; pseudoperidiis semiimmersis, cupulatis, fuscidulis, margine pallidis, fimbriatis, contextu cellulis oblonge polyhedricis, tessellatis, 30-40 × 20-30; æcidiosporis subgloboso-angulatis, verrucosis, hyalino-fuscidulis, 18-23.

Hab. in caulibus foliisque Psychotriæ spec., Iquitos Perù Amer. merid. — Ab *Æc. Psychotriæ* aliisque bene diversum.

27. **Æcidium Tracyanum** Syd. in Hedw. 1901, p. (129). — Æcidiis 1381
hypophyllis, in maculis irregularibus, indeterminatis, flavidis insidentibus, in greges irregulares v. rotundatos laxe dispositis, interdum paucis, etiam caulicolis, breviter cylindraceis, albidis, margine lacerato; pycnidiis in epiphyllo æcidiis contrapositis; æcidiosporis globosis v. angulato-globosis, hyalino-flavidis, subtiliter verruculosis, 20 26 µ. diam.

Hab. in foliis caulibusque vivis Ruelliæ spec., Braidentown, Florida Americæ bor. (S. M. Tracy).

28. **Æcidium Tuberosæ** P. Henn. Fungi Amaz. I, pag. 167 (Hedw. 1382
1904). — Maculis rotundatis, sparsis, ferrugineis; æcidiis plerumque epiphyllis interdum hypophyllis; pseudoperidiis aggregatis v. orbiculariter dispositis, ferrugineis, cupulatis, contextu cellulis oblonge polyhedricis vel fusoideis, reticulatis, fuscidulis; æcidiosporis subgloboso-angulatis, fusco-brunneis, 20-25 µ.

Hab. in foliis Ruelliæ tuberosæ, Perù, Salinas de Pilluana Amer. merid.

29. **Æcicidium isoglossæ** Syd. in Ann. Mycol. I, 1903, pag. 333. — 1383
Æcidiis amphigenis, maculis nullis vel vix distinctis pallescentibus insidentibus, tubercula elevata verruciformia ca. 1-3 mm. diam. formantibus et in eis paucis profunde immersis, interdum etiam solitariis vel 2-3 associatis et tubercula nulla vel vix evoluta formantibus, cupulatis, tandem late apertis et margine recurvato; æcidiosporis angulato-globosis vel late ellipsoideis, hyalino-flavescentibus, verruculosis, 20-28 × 18-25.

Hab. in foliis vivis Isoglossæ lacteæ, Bulagwa Berg, Deutsch Ostafrica (W. Goetze).

30. **Æcidium cyattarioides** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1384
1904). — Æcidiis ramicolis, cortice erumpentibus; gallis ovoideis vel varie tuberculiformibus, duris, usque ad 1-2 cm. diam., rugosis; pseudoperidiis immersis, cupulatis vel subfavosis, ferrugineis, contextu cellulis rotundato-polyhedricis ca. 30 μ., reticulatis; æcidiosporis subgloboso-angulatis, hyalino-flavidulis vel fuscidulis, levibus, 10-14 × 8-12.

Hab. in trunco ramisque Acanthaceæ cujusdam scandentis Rio Juruá, Marary Amazoniæ. — Gallas generat *Cyttariæ* habitu.

31. **Æcidium Melananthi** Henn. in Hedw. 1902, p. (62). — Æcidiis 1385
ramulos circumdantibus eos incrassantibus curvantibusque, gregariis v. sparsis, semiimmersis, subhemisphærico-pulvinatis, pallide flavidulis, contextu cellulis polyhedricis, reticulatis, fuscidulis; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, 18-21 μ. diam.

Hab. in ramulis Melananthi dipyrenoidis, Pico de Gavea Brasiliæ (E. Ule).

32. **Æcidium Aphelandræ** P. Henn. Fungi Amaz. IV, in Hedw. 1904, 1386
p. 58. — Maculis rotundatis fuscidulis vel pallidulis, atrobrunneo zonatis; pycnidiis epiphyllis gregariis, rotundato-pulvinatis, atrocastaneis; æcidiis hypophyllis oppositis vel sparsis, cupulatis, margine albido-fimbriatis, contextu cellulis polyhedricis ca. 20-30 μ. diam.; æcidiosporis subgloboso- v. ellipsoideo-angulatis, fuscidulis, levibus, 10-18 × 10-15.

Hab. in foliis Aphelandræ, Tarapoto, Rio Amazonas Brasiliæ.

33. **Æcidium habunguense** P. Henn. in Bot. Ergebn. der Kunene- 1387
Sambesi Expedit. pag. 160 (1902). — Maculis fuscis rotundatis, æcidiis hypophyllis orbiculariter dispositis, cupulatis v. breve cylindraceis, pallidis, dein subfuscidulis, contextu cellulis polyhedricis, subhyalinis, reticulatis, 20-30; æcidiosporis subglobosis angulatis, flavo-fuscidulis, levibus, 18-22 × 17-21.

Hab. in foliis Solani Baumii, Habungu Afr. austr.

34. **Ædidium alapense** Holw. Ann. Mycol. 1904, p. 392. — Maculis 1388
brunneis; ædidiis hypophyllis sparsis, in quoque grege 1-6, leviter immersis; ædidiosporis globosis vel angulosis, tuberculatis 24–36 × 24-28, membrana 4-6 μ. cr.; cellulis pseudoperidii fortiter verrucosis 28-40 × 24-28, membrana æqualiter 6 μ. crassa.

Hab. in foliis Ipomœæ (an I. Jalapæ?), Jalapa Mexici. — Simul adest *Uredo* quædam: soris brunneis, minutis, uredosporis globoso-ellipsoideis, laxe spinulosis 28-36 × 24–28.

35. **Ædidium Mayori** Ed. Fisch. Bull. herb. Boiss. 1902, pag. 957 1389
(absque diagnosi). — Pseudoperidiis in toto hypophyllo æqualiter gregariis, rarius in epiphyllo, folium leviter deformantibus, scutellatis, albido-flavidis, maturis margine extus flexo apertis; cellulis pseudoperidii superimpositis, tunica interiore paulo tenuiore verrucosa, exteriore paulo crassiore; ædidiosporis obtuse polyhedricis usque ellipsoideis, 24–32 × 12-21, tunica tenui extus crebre minute verruculosa.

Hab. in foliis Sideritis hyssopifoliæ in Vallon d'Ardran Helvetiæ (E. Mayor). — Intermixta et amphigena adsunt pycnidia (*Ædidiola*) ostiolis conspicue emergentibus.

36. **Ædidium caulicolum** Kellerm. Journ. of Myc. 1903, p. 227, St. 1390
ædialis *Pucciniæ caulicolæ* Tr. et Gall.: cfr. Syll. VII, p. 641. — Soris sæpe epiphyllis, paucis, sparsis, maculas sordide luteas formantibus, 0,5-1 mm. diam., raro hypophyllis; ædidiis in singulo soro paucis, interdum 10-12, erumpentibus 210-350 μ. diam., e cellulis latis compositis; ædidiosporis pallide aureo-luteis, echinulatis, globosis vel oblongo subovatis 10-25 × 17-20.

Hab. ex cultura *Pucciniæ caulicolæ* in foliis Salviæ lanceolatæ in Amer. bor. — Pseudoperidii margo laciniatus, vix reflexus.

37. **Ædidium Tinneæ** P. Henn. in Ergebn. der Kunene-Sambesi Ex- 1391
pedit. p. 162 (1902). — Maculis flavidis v. fuscidulis, rotundatis vel effusis interdum bullatis; ædidiis hypophyllis interdum epiphyllis, pseudoperidiis circulariter dispositis, sparsis v. aggregatis, cupulatis, pallidis, margine fimbriatis, contextu cellulis rotundato-polyhedricis flavidulis v. subhyalinis, reticulatis; ædidiosporis subglobosis angulatis, levibus, hyalino-fuscidulis, 18-22 × 15–18.

Hab. in foliis Tinneæ eriocalycis, Longa prope Napalanka Africæ austr.

38. **Ædidium Moschosmatis** P. Henn. in Engl. Bot. Jahrb. 1901, 1392
p. 254, Sacc. — Syll. XVI, p. 1122 (nomen). — Ædidiis petioli-

colis v. caulicolis, incrassatis curvatisque; pseudoperidiis gregariis cupulatis v cylindraceis, fissis, ochraceis, contextu cellulis oblongo-polyhedricis reticulatis, 35-60 × 25-35; æcidiosporis subglobosis, ovoideis v. ellipsoideis, angulatis, ochraceis, 26-50 × 20-30, episporio verrucoso.

Hab. in foliis Moschosmatis multiflori, Kondeland sup. Afr. orient.

39. **Ædidium clerodendricola** P. Henn. in Ergebn. der Kunene-Sambesi Expedit. p. 163 (1902). — Maculis fuscis rotundatis interdum confluenti-effusis; æcidiis orbiculariter dispositis, hypophyllis, aggregatis; pseudoperidiis cupulatis, pallidis vel fusciduli, margine fimbriatis; contextu cellulis polyhedricis, reticulatis, 20-30 µ. d., subhyalinis; æcidiosporis subglobosis v. ellipsoideis angulatis, intus flavo-brunneis, levibus, 18-21 × 15-20. 1393

Hab. in foliis Clerodendri Buchneri, Knito Afr. austr.

40. **Ædidium Lippiæ-sidoidis** Syd. in Œsterr. bot. Zeitschr. 1902, n. 5. — Æcidiis hypophyllis, maculis orbicularibus, 2-4 mm. d., fuscis insidentibus, in greges maculam subexplentes rotundatos dispositis, primo globoso-clausis, dein cupulatis, flavis; æcidiosporis angulatis, verruculosis, flavidis, 16-25 × 15-22. 1394

Hab. in foliis vivis Lippiæ sidoidis, Brasilia (Sello).

41. **Ædidium Eritrichii** P. Henn. Einige neue japan. Ured. III, in Hedw. 1902, p. 21. — Maculis fuscis, rotundatis v. effusis; æcidiis caulicolis v. hypophyllis; pseudoperidiis aggregatis, cupulatis, flavidulis, cellulis contextu polyhedricis ca. 20 µ. diam., hyalinis; æcidiosporis subglobosis, flavo-aurantiis, 13-17 µ. diam. levibus. 1395

Hab. in caulibus foliisque Eritrichii pedunculares, Tosa Japoniæ.

42. **Ædidium Williamsii** Ricker, Journ. of Mycol. 1904, pag. 165. — Maculis flavidis, leviter incrassatis; pseudoperidiis dense aggregatis, sæpius hypophyllis, cylindraceis v. ellipsoideis; sporis pallide flavis subglobosis, 19-26 µ. diam., minute verrucosis, tunica 2 µ. cr. 1396

Hab. in foliis et caulibus Lithospermi angustifolii, Brooking S. D. Amer. bor. (T. A. Williams). — Cum *P. Lithospermi* E. et K. (quæ potius vocanda *P. Evolvuli*, nam in Evolvulo piloso nascitur, nec in Lithospermo) nil commune habet.

43. **Ædidium Onosmodii** Arthur, Bull. Torr. Bot. Cl. 1904, pag. 6. — Pycnidiis amphigenis, in circulum parvulum dispositis, punctiformibus, melleo-aurantiacis, immersis, subepidermicis, in sectione verticali globosis, 90-120 µ. diam., ostioli periphysibus 60- 1397

80 μ. longis; æcidiis hypophyllis minutis in circulum parvulum dispositis vel solitariis, pustuliformibus; pseudoperidiis erectis vel interdum curvulis, margine crasse laceratis; æcidiosporis globosis 20-29 vel 19-23, episporio hyalino 2–2,5 μ. lato, dense minuteque verrucoso.

Hab. in foliis Onosmodii mollis, Callaway, Nebraska, North Dakota et Kansas, Amer. bor.

44. **Æcidium Mertensiæ** Arthur, Bull. Torr. Bot. Cl. 1904, p. 6. — 1398
Pycnidiis epiphyllis, in circulos parvulos dispositis, stipatis, punctiformibus, immersis, subepidermicis, globosis, 65-120 μ. diam. ostiolis periphysibus 60-90 μ. longis; æcidiis hypophyllis in circulum dispositis, stipatis, latis immersis; pseudoperidiis crasse laceratis recurvatisque; æcidiosporis luteo-aurantiacis globosis 19–26 vel 22-28, episporio hyalino tenuissimo 1–2 μ. lato, dense minuteque verruculoso v. sublevi.

Hab. in foliis Mertensiæ paniculatæ prope Lolo Creek in montibus Bitter Root, Idaho, Amer. bor.

45. **Æcidium Guadalajaræ** Syd. in Œst. bot. Zeitschr. 1902, n. 5. — 1399
Æcidiis hypophyllis, maculis orbicularibus brunneolis insidentibus, solitariis v. sæpius paucis tantum in quaque macula, cylindraceis, albidis; æcidiosporis angulatis, subtiliter verruculosis, flavescentibus, 16–23 μ. diam.

Hab. in foliis vivis Brickelliæ hebecarpæ, in collibus pr. Guadalajara Mexico (Pringle).

46. **Æcidium patagonicum** Speg. Myc. argent. ser. II, 1902, p. 66. — 1400
Pseudoperidiis apertis 0,4-0,8 mm. diam., confertis, matrice flavescente, incrassatula insidentibus; æcidiis amphigenis, primo hemisphærico-prominulis dein patellari-apertis, flavidulis, vix exsertis, margine denticulatis; cellulis pseudoperidii tessellatis polygonis crasse tunicatis, radiatim rugulosis; æcidiosporis e globoso polygonis levibus subhyalinis; uredosporis tenuiter tunicatis 14-16 μ. diam., densissime constipatis.

Hab. ad folia viva Collomiæ gracilis, prope Carren-leofú, in Argentina. — Stat. æcidiosporicus *Pucciniæ Patagonicæ* Speg., cum qua vegetat.

47. **Æcidium Jacquemontiæ** Ell. et Ev. in Journ. of Mycol. 1902, 1401
vol. 8, p. 11. — Æcidiis amphigenis, sparsis, hemisphærico-erumpentibus, dein apice applanatis, circa 250 μ. diam., in sicco fere plumbeis (colore ignoto in planta viva); cellulis pseudoperidii subellipticis, circ. 15 μ. diam.; æcidiosporis e globoso-angulari-

bus, circ. 12 μ diam. v. ovato-ellipticis, 12–15 × 10-12, episporio exili præditis.

Hab. in foliis Jacquemontiæ pentanthæ, Yucatan Mexico.

48 **Æcidium Fraseræ** Trelease. Harrim. Alaska Exped. Crypt. p. 36. 1902
— Maculis flavidis, circularibus v. in petiolis subelongatis, 2–5 mm. long.: pycnidiis et æcidiis amphigenis sed inferne copiosioribus prioribus denique brunneis; pseudoperidiis non confertis irregulariter v. circinatim dispositis, 0,25 mm. diam., cylindraceis, margine non excedente; æcidiosporis polygono-subglobosis v. ellipsoideis, sublevibus, 16-22 μ diam.

Hab. in foliis Fraseræ, Kadiak Alaska (Trelease). — Ab *Æcidio Gentianæ* Jacz. dispositione pycnidiorum et forma pseudoperidiorum sat diversum.

49. **Æcidium longaense** P. Henn. in Bot. Ergebn. der Kunene Sambesi Expedit. pag. 161 (1902). — Maculis flavo-fuscidulis, rotundatis, pycnidiis sparsis, rufo-brunneis, ceraceis, punctiformibus; æcidiis oppositis hypophyllis, rotundato-dispositis; pseudoperidiis aggregatis v. sparsis, cupulatis, margine fimbriatis, albidis v. flavidulis, contextu cellulis polyhedricis, reticulatis, hyalinis vel fusciduli; æcidiosporis subgloboso-angulatis, flavidis, 15-18 × 13-17 levibus. 1903

Hab. in foliis Jasmini microphylli, Longamundung Afr. austr.

50 **Æcidium Fraxini-Bungeanæ** Diet. in Bot. Jahrb. 1903, p. 630. — 1904
Hypophyllum; seris in maculis flavescentibus v. sordide brunneis, magnis præsertim secus nervos late, usque 4 cm., expansis, haud raro vesiculoso-inflatis et in petiolis nervisque foliorum tumores pulvinatos, convexos generantibus; pseudoperidiis cylindraceis rectis, margine irregulari; æcidiosporis irregulariter polyhedricis, oblongis vel isodiametricis, 20–28 × 17-23, episporio tenui irregulariter verrucoso præditis; pycnidiis in pagina superiore foliorum numerosis.

Hab. in foliis petiolisque Fraxini Bungeanæ var. pubinervis, Tokyo Japoniæ (Kusano).

51. **Æcidium Tellinianum** Sacc. Ann. Mycol. 1904, p. 174. — Pseu- 1905
peridiis amphigenis, hinc inde late et creberrime gregariis et magnam folii partem obtegentibus sæpeque contorquentibus, initio cupulatis, dein in tubulum album, subintegrum, sed facile laceratum, vix 1 mm. altum, 0,5 mm. latum productis; cellulis pseudoperidii oblongo-angulosis, 20-28 × 14-20, hyalinis, episporio cre-

bre minutissime transverse foveolato simulateque muriculato; æcidiosporis ovoideis v. ellipsoideis, sæpe obtuse angulosis, 25-28 × 16-20, levibus, varie guttulatis, dilute umbrinis.

Hab. in foliis vivis, rarius in ramulis tenellis Salvadoræ persicæ, Keren Erythrææ, 10 XI, 1902 (Prof. Ach. Tellini). — Matricem determinavit prof. R. Pirotta.

52. **Æcidium Ulei** P. Henn. Fungi Amaz. I, p. 167 (Hedw. 1904). — 1496
Maculis rotundatis vel effusis, fuscis vel nigricantibus; pycnidiis epiphyllis gregariis, hemisphæricis, atris, ca. 0,3 μ. diam.; æcidiis hypophyllis, circulariter dispositis vel sparsis; pseudoperidiis primo hemisphærico-clausis, atris, dein cupulatis, pallidis, margine fimbriatis, ca. 0,3-0,4 μ. diam., contextu cellulis oblonge polyhedricis, reticulatis, hyalinis, ca. 30 × 20; æcidiosporis subgloboso-angulatis, levibus, hyalino- vel flavido-fuscidulis, 14-20 μ.

Hab. in foliis Diospyri spec., Rio Juruá, Marary et St. Clara, Amer. merid.

53. **Æcidium atro-album** P. Henn. in Bot. Ergebn. der Kunene- 1497
Sambesi Expedit. p. 162 (1902). — Maculis flavidis v. fuscidulis; æcidiis hypophyllis raro epiphyllis; pseudoperidiis stromatoideis, atris primo clausis, dein apertis subcupulatis, intus albidis, margine sublaciniatis; æcidiosporis subglobosis angulatis, subhyalino-flavidulis, 17-21.

Hab. in foliis Diospyri mespiliformis, Kunene Africæ austr.

54. **Æcidium Encianthi** Diet. in Bot. Jahrb. 1903, p. 631. — Pseu- 1498
doperidiis hypophyllis in maculis parvis brunneis vel rubiginosis, flavo-areolatis, cupul.formibus, margine irregulariter lacerato praeditis; sporis subglobosis, polyhedricis vel oblongis, 22-28 × 17-24, episporio æquali, minute verrucoso vestitis.

Hab. in foliis Encianthi japonici in monte Shirane Japoniæ (Kusano).

55. **Æcidium virgatum** Lindroth, Die Umbellif. Ured. 1902, p. 164. 1499
— Pycnidiis flavidis vel brunneolis, subepidermicis, subrotundis, 100-120 μ. diam., ostiolis prominulis, hyalinis; æcidiis hypophyllis in maculis subcircularibus brunneis, subpoculiformibus, pseudoperidio brevissimo, minute denticulato, flavido; cellulis regulariter dispositis, subimbricatis, plerumque inæqualiter rectangularibus, 20-30 × 15-22, tunica æquali 3-4 μ. cr., latere externe transverse striata, interne crebre punctata; æcidiosporis regulariter

ter seriatis, globoso-polygoniis, tunica tenui, hyalina, minute verruculosa, 17-24 μ. diam.

Hab. in foliis Eryngii plani in prov. Saratow Rossiæ (Tranzschel).

56. **Æcidium salinum** Lindr. Die Umbellif. Ured. 1902, pag. 163. 1410
— Pycnidiis subepidermicis, ab æcidiis circumdatis, flavidis, 90-110 μ. albis, 180 μ. lat., ostiolis subhyalinis usque 60 μ. emergentibus; æcidiis pustuliformibus, flavidis; pseudoperidiis non emergentibus, cellulis irregulariter dispositis, inæqualiter rotundatis, laxiusculis, extus tunicâ 4-5 μ. cr., transverse striata, intus tunicâ tenuiori punctata formatis, 18-30 μ. diam.; æcidiosporis ellipsoideo-globosis, 18-27 × 15-24, membrana tenui, hyalina, crebre minute punctata.

Hab. in Peucedano salino, inter Jenisei et Tomsk Sibiriæ (A. K. Cyonder).

57. **Æcidium sarcinatum** Lindroth, Die Umbellif. Ured. 1902, p. 165. 1411
— Pycnidiis subepidermicis, 120-140 μ. diam., rarissimis; æcidiis poculiformibus in areis limitatis foliorum petiolorumque dense confertis; pseudoperidiis breve cylindraceis, margine brevi, flavido, minute inciso et revoluto; cellulis polygoniis, subinæqualiter dispositis, tunica latere exteriore 10 μ. cr., striis transversis vix emergentibus, e latere interiore 5-5,5 μ. cr., aculeolato-verrucosa 20-30 μ. diam.; æcidiosporis regulariter seriatis, globoso-ellipsoideis, tunica tenui, minute crebre verruculosa, 20-25 × 16-23.

Hab. in foliis Ferulæ fœtidissimæ, Turkestan (Komarov).

58. **Æcidium Berulæ** Bubák, Centralbl. f. Bakteriol. 1902, IX, p. 126.

Hab. in foliis Berulæ angustifoliæ in Bohemia. — Teste auctore in litt. æque ac *Æc. carotinum*, est status æcidialis *Uromycetis Scirpi* (Cast.) Lagerh. et ab illo morphologice non differt.

59. **Æcidium carotinum** Bubák, Centralb. f. Bakteriol. 1902, IX, p. 126.

Hab. in foliis Dauci Carotæ in Bohemia. — Teste auctore in litt., est status æcidialis *Uromycetis Scirpi* (Cast.) Lagerh. et ab Æcidiis pastinacicolis nullâ notâ morphologicâ differt.

60. **Æcidium Ferulæ** Rouss. et Dur. — Syll. VII, p. 793. — Sec. cl. Juel in Bull. Soc. Mycol. Fr. 1901, p. 268, species provenit in Thapsia non in Ferula; hinc potius vocanda *Æc. punicum* Juel. Tamen in Sicilia species revera nascitur etiam in Ferula, propterea nomen Rousselianum manere debet.

61. **Æcidium Hamamelidis** P. Magn. Ber. D. B. G. 1901, p. 297, 1412

t. XIII, f. 23-26 (absque diagnosi). — Maculis minutis epiphyllis, rubellis; pycnidiis epiphyllis; æcidiis hypophyllis pseudoperidiis longis præditis; æcidiosporis 25 × 20, membrana hinc inde bullato-inflata, bullis demum deciduis.

Hab. in foliis Hamamelidis sp. in montanis Nikko Japoniæ (Manabu Miyoshi).

62. **Æcidium Anogræ** Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. — 1413
Pseudoperidiis dense congestis, in maculis rubescentibus, densis, generaliter hypophyllis, elongatis, cylindraceis, margine laceratis, in longitudine revolutis; æcidiosporis subglobosis, 22-26, luteis, episporio 3 μ. cr., verruculoso donatis.

Hab. in foliis Anogræ pallidæ, Long Pine, Nebr. Americæ borealis.

63. **Æcidium Cardiospermi** Cooke: cfr. Syll. VII, p. 785. — Syd. in Ann. Mycol. 1903, I, p. 333. — Æcidiis hypophyllis, maculis flavidis v. flavo-brunneis, 2-5 mm. diam. insidentibus, in greges maculam explentes dense gregariis, minutissimis, diu hemisphæricis, tandem breviter cupulatis, margine subintegro; æcidiosporis angulato-globosis, hyalino-flavescentibus, minutissime verruculosis 16-24 μ. diam.

Hab. in foliis Cardiospermi microcarpi, Zanzibar Afr. merid.

64. **Æcidium Maprouneæ** P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1414
1904). — Maculis fuscis, irregulariter effusis, pycnidiis cinnamomeis punctiformibus; æcidiis hypophyllis interdum nervos sequentibus; pseudoperidiis sparsis vel gregariis, cupulatis albidis margine fimbriatis, contextu cellulis oblonge polyhedricis, hyalinis, reticulatis, 20-30 × 20; æcidiosporis oblonge vel subgloboso-angulatis, hyalinis, 12-20 × 10-16.

Hab. in foliis Maprouneæ spec., Perù, Rio Amazonas, Squitos, Amer. bor.

65. **Æcidium kakelense** P. Henn. in Bot. Ergebn. der Kunene-Sam- 1415
besi Expedit. p. 161 (1902). — Maculis sanguineis, effusis; æcidiis gregariis paginam inferiorem totam foliorum tegentibus; pseudoperidiis cylindraceis plus minus elongatis, cretaceis, contextu cellulis rotundato-polyhedricis, reticulatis, hyalinis, 22-30; æcidiosporis subglobosis v. ellipsoideis, angulatis, levibus, intus flavidis 18-23 × 15-21.

Hab. in Euphorbia spec., Gondkopje et Kakele Africæ austr.

66. **Æcidium Marci** Bubák, Ber. Deutsch. bot. Gesell. 1903, p. 275. 1416
— Caules et petiolos deformans et tumefaciens, foliaque occupans; pseudoperidiis initio immersis, dein emergentibus et margine albo, inflexo, laciniato, 100-200 μ. latis; cellulis irregulariter seriatis, globoso-polygoniis, 25-30 × 16-28, irregulariter crebre verruculosis, crasse tunicatis; pariete externe valde incrassato, contextu aurantio; æcidiosporis globosis v. oblongis, semper polygoniis, 20-28 × 17-24, membrana tenui, levi, flavida guttulisque majusculis aureis præditis.

Hab. in caulibus foliisque Mercurialis annuæ, Dulcigno, Montenegro. — Pycnidia adsunt hemisphærica, mellea, dein brunneola, 100-150 μ. diam.

67. **Æcidium dalechampiicola** P. Henn. in Hedw. 1904, p. 80. — Ma- 1417
culis fuscidulis; æcidiis hypophyllis sparsis vel gregariis, nervos sequentibus, pallide fuscidulis; pseudoperidiis cupulatis, margine fimbriatis, contextu cellulis polyhedricis, granulato-subreticulatis 20-30 μ.; sporis subglobosis, ellipsoideis vel ovoideis, flavido-fuscidulis, 11-20 × 10-16.

Hab. in foliis Dalechampiæ, in viridario Musei, Rio de Janeiro, Brasiliæ (C. Ule).

68. **Æcidium cornu-Cervi** P. Henn. Fungi Amaz. I, p. 168, fig. III 1418
(Hedw. 1904). — Æcidiis ramicolis eos varie deformantibus; gallis cornutis xylariiformibus vel ramossimis usque ad 10 cm. diam., ferrugineo-cinerescentibus; pseudoperidiis semiimmersis dense gregariis cupulatis, alutaceis margine pallidis, fimbriatis v. laceratis; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis; sporis subgloboso-angulatis, levibus, 15-18 × 12-16.

Hab. in caulibus Dalechampiæ sp., Rio Juruá Amer. merid. — Notabilissima species, ramos omnino deformans, ab *Æc. Dalechampiæ* et *Æc. dalechampiicola* omnino diversa.

69. **Æcidium tragiicola** P. Henn. Fungi Amaz. I, pag. 167 (Hedw. 1419
1904). — Maculis rotundato-angulatis, flavo-fuscidulis; pycnidiis punctiformibus atris; æcidiis hypophyllis interdum epiphyllis, pseudoperidiis suborbiculariter aggregatis, cupulatis, ferrugineo-pallescentibus, contextu cellulis oblonge vel rotundato-angulatis reticulatis, hyalino-fuscidulis; sporis subgloboso-angulatis, flavo-fuscidulis, 12-18 μ.

Hab. in foliis Tragiæ fallacis, Perù, Cerro de Cumbasso, Amer. merid.

70. **Æcidium Turneræ** P. Henn. Fungi Amaz. I, p. 171 (Hedw. 1904). 1420

— Maculis ferrugineis effusis; æcidiis hypophyllis; pseudoperidiis aggregatis, semiimmersis, cupulatis, fuscidulis, margine albido fimbriato, contextu cellulis subrotundato-polyhedricis, hyalino reticulatis ca. 20–30 μ. diam.; æcidiosporis subgloboso-angulatis, hyalino-fuscidulis, levibus, 20–25 μ.

Hab. in foliis Turneræ ulmifoliæ, Tarapoto, Perù Amer. merid.

71. **Æcidium violascens** Trelease, Harrim. Alaska Exped. Crypt. pag. 37. — Maculis latis, irregularibus, effusis, præsertim in epiphyllo violaceis, sæpe nervisequis; soris hypophyllis, vix 0,5 mm. diam., hemisphæricis, irregulariter confertis juxta nervos; pseudoperidiis inclusis, non marginatis, cellulis irregulariter oblongis, 30–40 × 20, ruguloso-asperulis; æcidiosporis e polygonio globosis v. ellipsoideis, minute verruculosis, 22–35 × 22–28. 1421

Hab. in foliis Geranii erianthi, Kadiak (Trelease), Kukak Bay, Alaska (Saunders). — Ab *Æc. Geranii* præcipue macularum colore, sporis majoribus præ ceteris diversa. Nervi foliorum fungo invasi leviter incrassantur.

72. **Æcidium subincarnatum** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). — Maculis rufobrunneis rotundatis vel effusis interdum bullato incrassatis; æcidiis plerumque hypophyllis, interdum epiphyllis roseolo-flavidis; pseudoperidiis dense aggregatis, primo hemisphærico-clausis, dein cupulatis, flavido-carneis, fuscidulis, contextu cellulis oblonge v. rotundato-polyhedricis, incarnatis, 20–40 μ. diam.; æcidiis subgloboso-angulatis, 15–20 × 13–17 hyalino vel flavo-incarnescentibus. 1422

Hab. in foliis Sterculiaceæ cujusdam, St. Claras Rio Juruá Amer. merid.

73. **Æcidium cerrense** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1904). — Maculis rotundatis vel effusis incrassatis, fusco-nigricantibus; pycnidiis punctiformibus, subhemisphæricis atris, dein vertice niveis; æcidiis hypophyllis, oppositis, subimmersis, cupulatis, ferrugineis, contextu cellulis rotundato- vel oblongo-polyhedricis, reticulatis, ca. 20. μ. diam.; æcidiosporis subgloboso-angulatis, fuscidulis, levibus, 10-15 × 10-13. 1423

Hab. in foliis Burseraceæ? Perù Cerro do Escaler, Amer. merid.

74. **Æcidium uredinoidis** P. Henn. Fungi Amaz. IV, in Hedw. 1904, p. 58. — Maculis subrotundatis vel late effusis folium pro parte destruentibus, atrofuscis, rugulosis; æcidiis hypophyllis late effusis, 1424

pseudoperidiis cupulatis, pulvinatis, margine pallido fimbriatis, confluentibus, dein flavido- vel ferrugineo-farinosis, contextu cellulis polyhedricis reticulatis; æcidiosporis subglobosis vel ellipsoideis, angulatis, hyalino-fuscidulis, 16-22 ≈ 14-20.

Hab. in foliis Sapindaceæ cujusdam, Rio Juruá Brasiliæ.

75. **Æcidium malvicolum** Arthur Bull. Torr. Bot. Cl. 1904, pag. 6. 1425
— Pycnidiis epiphyllis, congestis, punctiformibus melleo-aurantiacis, immersis, subepidermicis, globosis, 100-125 μ. diam.; ostioli periphysibus numerosis, 38-80 μ. longis.; æcidiis hypophyllis, in circulos, usque 10 mm. diam., dispositis; pseudoperidiis brevibus, cylindraceis, margine erectis vel sæpe revolutis, erosis; æcidiosporis globosis 14-22 v. 16-24 μ. diam., episporio hyalino, tenui, 1,5 μ. lato, minute et æqualiter verrucosulo.

Hab. in foliis Althææ roseæ, Callaway, Nebraska, Malvastri coccinei, Wakeeney, Kansas et Callirrhoes involucratæ Rooks County, Kansas, Amer. bor.

76. **Æcidium bomolense** Sydow in Ann. Mycol. 1904, p. 351. — Pycni- 1426
diis numerosis, epiphyllis; æcidiis hypophyllis maculis orbicularibus flavis v. flavo-brunneis usque 1 cm. diam. insidentibus, laxe et irregulariter in greges maculam explentes dispositis, cupulatis, margine lacero, revoluto, albido; æcidiosporis angulato-globosis, hyalino-flavescentibus, subtiliter verruculosis, 17-25 μ. diam.

Hab. in foliis vivis Adeniæ (sec. Ophiocauli) spec. in M. Bomole Africæ orient. germanicæ (A. Karasek).

77. **Æcidium passifloricolum** P. Henn. Fungi Amaz. I, p 168 (Hedw. 142
1904). — Maculis rotundato-angulatis, flavo-brunneolis; æcidiis hypophyllis concoloribus, pseudoperidiis pulvinato-discoideis, dein cupulatis, pallidis, cellulis rotundato-polyhedricis, hyalino-reticulatis, ca. 20-30 μ.; æcidiosporis subgloboso-angulatis, flavidulis, 15-20 μ. episporio levi, hyalino.

Hab. in foliis Passifloræ spec. Perù, Tarapoto, Amer. merid. — Ab *Æcidio Passifloræ* sporis duplo crassioribus mox dignoscitur.

78. **Æcidium Passifloræ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 43. 1428
— Maculis flavidis, rotundatis, pycnidiis epiphyllis, punctiformibus, flavo-brunneis; æcidiis oppositis sparsis, pseudoperidiis sparsis vel rotundato-dispositis, plano-cupulatis, flavidis, margine albido fimbriatis; contextu cellulis oblongo-angulatis, flavidulo-hyalinis, reticulatis, 20-30 μ. diam.; æcidiosporis subglobosis, hyalino fuscidulis, levibus, 7-10 μ. diam.

Hab. in foliis Passifloræ spec., Ost-Usambara Africæ orient. (Zimmermann).

79. **Æcidium miryense** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). 1429
— Maculis rotundatis vel effusis, ochraceo- vel rufo-fuscidulis vix incrassatis; pycnidiis punctiformibus, fusco-atris; æcidiis oppositis hypophyllis, pseudoperidiis gregariis cupulatis, alutaceis, margine pallidis subfimbriatis; contextu cellulis rotundato-polyhedricis, 20-30 μ., reticulatis, hyalinis; æcidiosporis subgloboso-angulatis, intus hyalino-flavidulis, 10-16 μ., levibus.

Hab. in foliis Guareæ spec. Rio Juruá, Juruá-Miry, Amer. merid. — Ab *Æc. Guareæ* præcipue diversum, quia non galligenum.

80. **Æcidium Guareæ** P. Henn. Fungi Amaz. I, p. 168 (Hedw. 1904). 1430
— Æcidiis caulicolis flori- vel foliicolis et bullato-deformantibus, incrassatis, effusis, alutaceo-cinerescentibus; pseudoperidiis semiimmersis, cupulatis, pallide alutaceis, dense gregariis; contextu cellulis rotundato- vel oblongo-polyhedricis, reticulatis, hyalino-fuscidulis, ca. 20-30 μ. d.; æcidiosporis subgloboso-angulatis, 15-23 μ., episporio brunneolo, levi.

Hab. in ramulis, foliis etc. Guareæ sp., Rio Juruá, Bom Fim, Belem, Marary, Amer. merid.

81. **Æcidium porosum** Peck — Syll. VII, p. 787. — var. **anodonta** 1431
Speg. in Ann. Soc. Cient. Argent. 1899, p. 276.

Hab. ad folia viva Viciæ Patagonicæ, prope Laco Muster, Amer. occid. (N. Illin). — Specimina patagonica a typo recedunt pseudoperidiis ore integro donatis et sporis paullulo minoribus. Cellulæ exoperidiis loricatæ subhexagonæ 20-30 × 20-25, crasse tunicatæ et grosse radiatim rugulosæ subhyalinæ; uredosporæ globosæ vel e mutua pressione plus minusve angulosæ vel deformatæ, 18-22 × 18-20, episporio hyalino, endoplasmate aurantiaco.

82. **Æcidium Toræ** P. Henn. Engl. Bot. Jahrb. 1903, p. 42. — Maculis 1432
rotundatis, flavidis vel fuscidulis; æcidiis hypophyllis; pseudoperidiis dense gregariis, cupulatis, aureis, margine albido fimbriatis; contextu cellulis oblonge polyhedricis, reticulatis, flavo-hyalinis 25-40 × 15-20; æcidiosporis subglobosis, angulatis, intus aurantiis 10-15, episporio hyalino levi.

Hab. in foliis Cassiæ Toræ, Ost-Usambara Africæ orient. (Zimmermann).

83. **Æcidium Dielsii** P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. 1433
XXVIII, pag. 34. — Maculis fuscidulis; æcidiis amphigenis, in-

crassatis galliformibus, ochraceis; pseudoperidiis aggregatis, cupulatis v. subcylindraceis, margine albido-subfimbriatis; contextu cellulis polyhedricis, reticulatis, 30-50 μ. diam. hyalinis æcidiosporis subglobosis vel ovoideo-ellipsoideis, angulatis, 23-30 × 22-27, episporio crasso granulato.

Hab. in foliis Crotalariæ spec., Capland (Diels).

84. **Æcidium Cytisi** Voss — Syll. XI, p. 114. — forma **ramulicola** 1434
Sacc. Notæ Mycol. in Syd. Ann. Mycologici 1903, n. 1, p 24.

Hab. in ramulis vivis Cytisi hirsuti in collibus Montello, Volpago (Treviso) Italiæ borealis. — Ramulorum partes *Æcidio* correptæ leviter et æqualiter tumescunt.

85. **Æcidium Bossiææ** P. Henn. Fungi Austral. occ. II, in Hedw. 1435
1901, p. 352. — Maculis brunneolis; æcidiis hypophyllis sparsis; pseudoperidiis subaggregatis, cupulatis, brunneolis, ca. 0,2-0,3 mm. diam., margine pallido subfimbriatis; contextu cellulis polyhedricis, reticulatis, ca. 20-30 μ. diam.; æcidiosporis ellipsoideis, levibus, 12-22 × 12-18, hyalinis.

Hab. in foliis Bossiææ linophyllæ, King Georges Sound, Austral. occid.

86. **Æcidium Inouyei** P. Henn. Engl. Jahrb. 1902, XXXII, p. 37. — 1436
Pseudoperidiis paginam foliorum totam occupantibus, immersis primo clausis, dein cupulatis, ca. 0,5 mm. diametro; æcidiosporis subglobosis vel ellipsoideis, polyhedricis, flavidulis hyalinescentibus, intus granulatis, 18-26 × 18-20, episporio levi, flavo.

Hab. in foliis Amphicarpææ sp. Sakawa, Tosa Japoniæ. — Probabiliter st. æcidialis *Uromycetis* sp.

87. **Æcidium Sophoræ** Kus. Bot. Mag. Tokyo 1904, VIII, p. 203, 1437
f. 1. — Pycnidiis amphigenis, sæpius epiphyllis, punctatis, ostioli periphysibus capillaribus; sporulis ellipsoideis vel globosis, hyalinis; æcidiis amphigenis, sæpius hypophyllis, petiolicolis ramicolisque, irregulariter congregatis, sæpe folii magnam partem occupantibus; pseudoperidiis aggregatis, subcircinantibus, minutis, tubulosis, margine angusto lacerato et reflexo; cellulis rectangularibus, unistratosis, 40-50 × 20-25, pariete tenui; æcidiosporis subinde compressione angulosis, 25-35 μ. diam., episporio tenui minute verrucoso.

Hab. in foliis Sophoræ platycarpæ, Hakone in prov. Sagami Japoniæ (Prof. J. Matsumura).

88. **Æcidium Purpusiorum** P. Henn. in Hedw. 1903, p. (189). — Æci- 1438
diis fructicolis et deformantibus; pseudoperidiis densis plus mi-

nus elongato-cylindraceis, usque ad 12 μ. longis, ca. 0,8 μ. cr., roseis; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis; æcidiosporis subglobosis, ovoideis vel ellipsoideis, intus aurantio-oleosis, episporio hyalino, radiato-striato, 25–38 × 18-30.

Hab. in fructibus Cratægi, Ixtacihuatle, Mexico (C. A. Purpus).

89. **Æcidium Cardiandræ** Diet. in Bot. Jahrb. 1903, p. 630. — Pseu- 1439
doperidiis hypophyllis in maculis flavis vel brunneolis, minutis vel usque 4 mm. latis, interdum confluentibus, cylindraceis, margine recto vel modice recurvato denticulato, ca. 180 μ. diam.; cellulis pseudoperidii valde regularibus, sexangularibus, 21 μ. latis, verrucosis; æcidiosporis polyhedricis, globosis vel ellipsoideis, 22-26 × 18-25, subtiliter verrucosis.

Hab. in foliis Cardiandræ alternifoliæ, Nikko Japoniæ (Kusano).

90. **Æcidium Hydrangeæ-paniculatæ** Diet. in Bot. Jahrb. 1903, p. 630. 1440
— Pseudoperidiis in maculis magnis irregularibus flavis vel rubiginosis, medio sæpe arescentibus, hypophyllis, in acervulos circulares usque 8 mm. latos congestis, cupuliformibus, margine recurvato denticulato præditis; sporis oblongis 21-27 × 13-18, episporio subtilissime verrucoso tenui vestitis.

Hab. in foliis Hydrangeæ paniculatæ, Nikko Japoniæ (Kusano).

91. **Æcidium ribesicola** Speg. Myc. Arg. ser. I, in Ann. Soc. Cient. 1441
Arz. 1899, p. 267. — Maculis fere nullis pallescentibus, foliicolis, raro petioli- vel floricolis; pseudoperidiis 0,5–0,7 mm. alt., 0,20-0,25 mm. diam., densissime constipatis atque pulvinulum sat prominulum superne applanatum ostiolato-alveolatum, margine obtusum repando-orbiculatum 2-6 mm. diam., efficientibus, pallide flavescentibus; tunica pseudoperidii tenui alba e cellulis hexagonis 25-30 μ. diam. crasse tunicatis, dense minuteque verruculosis efformata; æcidiosporis globosis, levibus, 22-25 μ. diam. aurantiacis.

Hab. in foliis vivis Ribis magellanici pr. Lago Nahuel-huapi Argentiniæ.

92. **Æcidium thlaspianum** Syd. in Œster. bot. Zeitschr. 1902, n. 5. — 1442
Æcidiis hypophyllis, maculis flavidis insidentibus, irregulariter distributis vel paucis laxe aggregatis, cupulatis, margine inciso, recurvato, albido; æcidiosporis angulatis, subtilissime verruculosis, flavescentibus, 14-18 μ. diam. vel 16-23 × 14-18.

Hab. in foliis Thlaspeos ceratocarpi in Songaria (Schrenk).

93. **Æcidium Biscutellæ** Noelli, Malpighia 1902, vol. XVI. — Æcidiis 1443
amphigenis in maculis minutis circularibus vel ellipticis luteis. 1,6-2,5 mm. diam. insidentibus; pycnidiis sparsis, 2-3 congestis, aurantiacis, 210–240 × 145–220; sporis subrotundis 1,2 μ. diam.; pseudoperidiis aurantiacis in circulum dispositis, in singula macula 4-14 dense congestis, erumpentibus e cellulis fere ovalibus, hyalinis transverse sulcatis, rugosulis polygonalibus, 15-30 × 12-16, compositis; æcidiosporis congestis, irregularibus, angulosis, fere circularibus vel polygonalibus, hyalino-marginatis, intus luteo-aurantiacis, 12-21 μ. long. et 12-18 μ. latis.

Hab. in foliis Biscutellæ levigatæ, in Monte Musiné prope Susa Italiæ bor.

94. **Æcidium melanotes** Syd. Ann. Mycol. 1903, p. 20. — Æcidiis 1444
amphigenis, in hypophyllo magis prominentibus, in acervos rotundatos, 2-10 mm. diam., bullatos, stromatiformes compactos in sicco (an etiam in vivo?) atros, superficie asperulos rhytismoideos dispositis, profundeque immersis; contextu cellulis tabulari-polyhedricis flavido-hyalinis deorsum cuneato-attenuatis parte superiore verrucosis, basim versus levibus, 24-48 × 19-30 composito; æcidiosporis globosis, subglobosis vel angulatis, subtiliter verruculosis, flavescentibus, apice usque 7 μ. incrassatis, 21-28 μ. diam., episporio tenui.

Hab. in foliis vivis Tetrantheræ amaræ in Monte Salak ins. Javæ (Penzig).

95. **Æcidium Machili** P. Henn. Einige neue japan. Ured. III, in Hedw. 1445
1902, p. 21. — Maculis rotundato-explanatis, fuscis, subincrassatis; æcidiis hypophyllis, pseudoperidiis sparsis v. aggregatis, semiimmersis, cupulatis, fusco-brunneis, margine subintegris; æcidiosporis subgloboso-angulatis, 20-30 μ. diam., hyalino-fuscidulis.

Hab. in foliis Machili Thumbergii, Tosa Japoniæ.

96. **Æcidium rionegrense** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1446
1904. — Maculis valde incrassatis, rufo-brunneis nigricantibus, rotundatis; æcidiis hypophyllis sparsis v. gregariis; pseudoperidiis subimmersis, aggregatis, dein cupulatis, ochraceis, margine fimbriatis; contextu cellulis rotundato-polyhedricis, reticulatis, 30 × 20; sporis subgloboso-angulatis, flavido-fuscidulis, 17-24 μ.

Hab. in foliis Guatteriæ Schomburgkianæ, Rio Negro, Manaos, Amer. merid. — Format in foliis gallas pulvinatas rufas usque 3 cm. cr.

97. **Æcidium amazonense** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1447

1904). — Maculis rotundatis v. effusis, atroferrugineis, subincrassatis; æcidiis hypophyllis; pseudoperidiis aggregatis in maculis dispositis, subimmersis, cupulatis, ferrugineis, margine fimbriatis; contextu cellulis rotundato-polyhedricis, hyalinis, reticulatis, ca. 30 μ. diam.; æcidiosporis subgloboso-angulatis, subhyalino-fuscidulis, 20-25 μ.

Hab. in foliis coriaceis et tomentosis Guatteriæ spec. Perù, Rio Amazonas, Amer. Merid. — Ab *Æc. Guatteriæ* Diet. præcipue sporis levibus distinctum

98. **Æcidium mararyense** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1904). — Maculis rotundatis v. effusis atrofuscis; pycnidiis punctiformibus atris; æcidiis hypophyllis oppositis gregariis, semiimmerso-cupulatis, mox pulverulentis, ferrugineis; contextu cellulis rotundato- v. oblonge polyhedricis, reticulatis, hyalino-fuscidulis, plerumque 20-30 μ. diam; æcidiosporis subgloboso- v. ellipsoideo-angulatis, olivaceo-fuscis, 18-26 μ. 1448

Hab. in foliis Guatteriæ spec., Rio Juruá, Marary Amer. merid.

99. **Æcidium huallagense** P. Henn. Fungi Amaz. I, p. 170 (Hedw. 1904). — Maculis subincrassatis rotundato-angulatis, ochraceo-luteis vel fuscidulis, sparsis; pycnidiis punctiformibus atris; æcidiis hypophyllo-oppositis in maculis cinereis, semiimmersis, cupulatis, pallido-fuscidulis; contextu cellulis rotundato-vel oblonge polyhedricis, reticulatis, hyalino-fuscidulis; sporis subgloboso-angulatis, hyalino-flavidis vel fuscidulis, 15-20 μ. 1449

Hab. in foliis Guatteriæ alutaceæ et alius Anonaceæ cujusdam, Perù Tarapoto, Amer. merid. — Maculæ superne ochraceæ, inferne griseæ. Ab *Æc. Xylopiæ* diversum.

100. **Æcidium juruense** P. Henn. Fungi Amaz. I, p. 169 (Hedw. 1904). — Maculis rotundatis fusco-atris, inflato-incrassatis; pycnidiis punctiformibus, atris; æcidiis hypophyllis bullatis, aggregatis immersis, flavidis, cupulatis, 0,2-0,3 mm diam.; contextu cellulis oblonge polyhedricis, reticulatis, hyalinis, plerumque 30 × 20; æcidiosporis subgloboso-angulatis, hyalino-bruuneolis, levibus, 13-20 μ. 1450

Hab. in foliis Monopsidis polyphlebæ, Rio Juruá, Juruá-Miry, Amer. bor.

101. **Æcidium Popowiæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 42. — Maculis valde incrassatis, rufobrunneis, nigricantibus, rotundatis vel explanatis; pycnidiis epiphyllis punctiformibus, subhemisphæricis, atro-brunneis; æcidiis oppositis, galliformibus in- 1451

crassatis; pseudoperidiis cylindraceis usque ad 1 mm. elongatis, aurantiis; contextu cellulis oblongis, angulatis, reticulatis, intus flavido-oleosis 18-30 × 13-18; æcidiosporis subglobosis vel ellipsoideis, intus aurantio-oleoso-guttulatis, 14-17 × 13-16; sporulis ellipsoideis, hyalinis, 2,5 × 1,5.

Hab. in foliis Popowiæ gracilis, Dar-es-Salam, Zanzibar, Afr. orient. (Engler).

102. **Æcidium Maublancii** Sydow Ann. Mycol. 1904, p. 351, *Æcidium mexicanum* Maubl. Bull. Soc. Myc. Fr. 1904. p. 73, t. VII, f. 9, nec *Æc. mexicanum* D. et H. (in *Cisso*). — Maculis parvis angulatis, flavis vel melleis; pycnidiis epiphyllis, brunneis, ovoideis 200-260 × 115-130; æcidiis hypophyllis, gregariis; pseudoperidiis elongatis, longe cylindraceis, 1,2-2 mm. longis, aurantiis; cellulis pseudoperidii angulatis, difformibus, hyalinis, intus aurantiacis, 14-28 µ. diam.; æcidiosporis subglobosis, rarius oblongis, angulatis, 13-20 × 11-15, episporio hyalino, levi, endoplasmate guttulato-aurantiaco. 1452

Hab. in foliis Mahoniæ in Mexico (Bonansea).

103. **Æcidium Fendleri** Tracy et Earle in Plantæ Backerianæ fasc. I, fungi p. 17. — Fere semper hypophyllum; maculis magnis, 1 cm. latis, rubris, luteo-marginatis; pseudoperidiis sparsis, lucentibus, luteis, 400 µ. diam., margine irregulariter laceratis, recurvatis; cellulis irregulari-polygonalibus, conspicue rugulosis, 20-30 µ. diam; sporis subglobosis, lucentibus, luteis, minute rugulosis, 20 µ. diam.; pycnidiis luteo-melleis, inconspicuis, 200 µ. diam. 1453

Hab. in foliis Berberidis Fendleri, Manaos, Colorado, Amer. bor. — *Æc. Berberidis* affine.

104. **Æcidium Berberidis-ruscifoliæ** Henn. in Hedw. 1902. p. (62). — Æcidiis hypophyllis totam paginam occupantibus; pseudoperidiis gregariis, hemisphæricis clausis, subbrunneolis, dein vertice apertis, vix fimbriatis, pallide flavidis, 0 3 mm. diam.; contextu cellulis rotundato-angulatis, reticulis hyalino-flavidulis, ca. 20-24 µ. diam.; æcidiosporis subglobosis, angulatis flavido-pallidis, 10-15 µ. diam. 1454

Hab. in foliis vivis Berberidis ruscifoliæ, Cordoba Argentiniæ.

105. **Æcidium Leonticis** Tranzschel in Acta Hort. Botan. Univers. Imperial. Jurgevensis, vol. II, fasc. II, p. 91, 1901. — Maculas flavas in pagina superiore foliorum crassas efformans; pseudoperidiis hypophyllis, rarius nonnullis epiphyllis, dense gregariis, 1455

sæpe totos lobulos foliorum occupantibus, poculatis, margine vix exserto (saltem in exemplaribus junioribus tantum visis); cellularum pseudoperidii membranæ hyalinæ parte exteriore valde incrassata (usque ad 9 μ.), parte interiore verrucosa, contentu aurantiaco; æcidiosporis angulato-rotundatis v. ellipsoideis, 20-26 × 16-20, membrana hyalina, subtiliter verrucosa, contentu aurantiaco. Pycnidia non visa.

Hab. in fol. Leontices Leontopetali, prope As'chabad Turcomaniæ.

106. **Æcidium punctatum** Pers. — Syll. VII, p. 775. — *Æcidiolum punctatum* D. Sacc. — Pycnidiis hypophyllis dense gregariis, hemisphæricis, prominulis, 1/6 mm. diam. e hyalino rubescentibus, nitidulis, tenui-membranaceis, contextu distincte laxe parenchymatico, radiante, poro pertusis; basidiis fasciculatis bacillaribns 16 × 2; sporulis ovoideis, 3 × 1,5, hyalinis. 1456

Hab. in foliis vivis Anemones coronariæ, Firenze (Prof. Adr. Fiori). — Ob *Æcidium* deficiens et pycnidia exclusive hypophylla forma distinguenda videtur.

107. **Æcidium Ranunculacearum** DC. — Syll. Fung. VII, p. 776. — var. **Aleæ** Trav. in D. Sacc. Myc. ital. n. 1264. — A typo mox differt habitatione numquam in laminis foliorum et quia matricem maxime deformat. 1457

Hab. in caulibus, petiolis pedunculisque Ranunculi bulbosi subsp. Aleae, in horto botanico Patavino, Majo 1903. — Inter adest socia *Urocystis Anemones.*

108. **Æcidium occidentale** Arthur, Bull. Torr. Bot. Cl. 1904, pag. 7. — Pycnidiis amphigenis, in parvulos greges dispositis, stipatis, prominulis, melleo-aurantiacis, punctiformibus, immersis, subepidermicis, globosis, sæpe depressis, 110-150 μ. diam.; ostioli periphysibus liberis sæpe agglutinatis, 30-75 μ. longis; æcidiis hypophyllis in greges circulares v. oblongatos dispositis, subcongestis, latis; pseudoperidiis pallidis, margine erectis, erosis; æcidiosporis globosis, 24 × 18 v. 29 × 23; episporio 2,5-3 μ. lato, hyalino, dense minuteque verruculoso. 1458

Hab. in foliis Clematidis Douglasii, Pullman, Washington, Moscow Idaho, Helena Montana, Amer. bor. — *Æc. Clematidis* affinis species.

109. **Æcidium Delphinii** Barthol. in Journ. of Mycol. 1902, p. 173. — Hypophyllum; maculis epiphyllis, luteo-brunneis, pallide marginatis; pseudoperidiis circinato-congestis, 3-5 mm. diam., intense 1459

aurantiacis, in pag. sup. irregulariter sparsis; æcidiis 250-350 μ. diam., margine lacerato-frangiatis, dein levibus, expansis; pycnidiis paucis vel indistinctis; æcidiosporis irregularibus, subglobosis vel angularibus, episporio rugoso, pluri-nucleatis, aurantiacis, 20-25 μ. diam.

Hab. in foliis Delphinii scopulorum, Steamboat Springs, Colorado, Amer. bor. (E. Bethel). — Species valde noxia.

110. **Æcidium dakotense** Griffiths, Bull. of the Torrey Bot. Club, 1902, p. 300. — Pycnidiis brunneis vel brunneo-nigris, sub lente luteis, hypophyllis, æqualiter sparsis, prominentibus; æcidiis hypophyllis sparsis, sæpe totum folium bullatum occupantibus, margine laceratis recurvatisque; æcidiosporis globosis vel pro mutua pressione angulosis, 15-18 μ. diam., episporio levi, tenui, in angulis incrassato. 1460

Hab. in foliis Aquilegiæ canadensis, Big Stone Lake, Dakota, Amer. bor.

111. **Æcidium Aikeni** Syd. in Ann. Myc. I, 1903, p. 334. — Pycnidiis amphigenis, sæpius hypophyllis, sparsis, solitariis, numerosis, æque per folium distributis, in sicco brunneis (in vivo melleis?) æcidiis eadem distributione qua pycnidiis, sine maculis, plerumque per totum folium vel per magnam folii partem æque distributis, solitariis numquam in greges dispositis, primitus hemisphæricis, dein cupulatis, margine recurvato, inciso, albido; æcidiosporis globosis, subglobosis v. angulatis, rarius ellipsoideis, plerumque apice leniter incrassatis, subtiliter verruculosis, flavescentibus, 19-25 μ. diam.; contextu cellulis valde irregularibus 26-35 × 24-32 formato. 1161

Hab. in foliis vivis Thalictri purpurascentis, College Hill pr. Cincinnati in Ohio Americæ bor. (W. H. Aiken).

112. **Æcidium Polygoni cuspidati** Diet. in Bot. Jahrb. 1903, p. 629. — Pseudoperidiis hypophyllis in acervulos circulares 3-4 mm. latos vel secundum nervos elongatos congestis, margine albo denticulato præditis; sporis globosis vel polyhedricis v. oblongis, 16-23 × 15-20, subtiliter verrucosis. 1462

Hab. in foliis Polygoni cuspidati, Nikko Japoniæ (Kusano).

113. **Æcidium Atriplicis** Shear in Bull. of the Torr. Bot. Cl. 1902, p. 453. — Pseudoperidiis hypophyllis, plus minusve sparsis, 0-5-1 mm. longis, 240-320 μ. diam., erumpentibus, margine crenato-denticulatis; cellulis irregulariter pentagonis, 20-30 μ. d., dense reticulatis; sporis levibus, luteolis, irregulariter globosis, 20-24 μ. diam. 1463

Hab. in foliis Atriplicis Nuttallii, Montrose, Colorado Amer. bor.

114. **Æcidium moricola** P. Henn. F. javanici novi. in Hedw. 1902, p. 140. — Maculis fuscidulis; æcidiis hypophyllis, rare epiphyllis, sparsis; pseudoperidiis singularibus v. subaggregatis, primo tectis, dein cupulatis, ochracco-fuscidulis; contextu cellulis oblonge v. rotundato-angulatis, flavo-brunneis, 14–20 × 12–15; æcidiosporis subglobosis v. ellipsoideis, flavo-brunneolis, 16–23 × 13–17. 1464

Hab. in foliis Mori indicæ Javæ orient.

115. **Æcidium alaskanum** Trel., Harrim Alaska Exped. Crypt. p. 37. — Maculis pallidis, plerumque ellipticis, 5 × 5-10 mm.; pycnidiis nullis; æcidiis amphigenis, sed infra copiosioribus, 0,25 mm. lat., margine multifido, reflexo; cellulis pseudoperidii circ. 28 μ. diam.; æcidiosporis sublevibus, 16-20 μ. long., ellipsoideis. 1465

Hab. in foliis Habenariæ et Orchidis variarum spp. in Alaskæ pluribus locis (Trelease, Saunders, Macoun, Twaston). — Ab *Æcid. Orchidearum* (ad *Pucc. Moliniæ* spectante) pycnidiis nullis, cellulis pseudoperidii amplioribus, sporis minoribus etc. distinguendum.

116. **Æcidium Lilii-cordifolii** Diet. in Bot. Jahrb. 1903, pag. 629. — Pseudoperidiis hypophyllis in maculis rotundatis vel irregularibus usque 1 cm. latis, laxe gregariis, margine recurvato irregulariter lacerato vel denticulato præditis, flavidulis; æcidiosporis globosis vel late ellipsoideis, 20-23 × 17-20, subtiliter verrucosis. 1466

Hab. in foliis Lilii cordifolii, in prov. Hitachi Japoniæ (Kusano),

117. **Æcidium magnatum** Arthur in Bull. Torr. Bot. Cl. 1901, p. 664. — Maculis pallidis, circularibus; pseudoperidiis hypophyllis, cylindraceis, elongatis, margine laceratis; æcidiosporis luteis, subcylindraceis, 26–37, episporio verrucoso donatis. 1467

Hab. in foliis Vagueræ stellatæ (= Smilacina dentata) Valley of the Teton, Montana, Amer. bor.

118. **Æcidium Zephyranthis** Shear in Bull. of the Torr. Bot. Club. 1902, p. 454. — Maculis circularibus, luteolis, 1–2 mm. diam.; sporulis globosis v. subglobosis, 2-3 μ. diam.; pseudoperidiis amphigenis, orbiculariter in greges 1–4 dispositis, 200-300 μ. diam.; cellulis irregulariter polygonalibus, 21–35 μ. diam., dense reticulatis; sporis luteolis levibus, irregulariter globosis, 18–25 μ. diam. 1468

Hab. in foliis Zephyranthis, prope Tlalpam, Mexico Amer. borealis.

119. **Æcidium Mangarangæ** P. Henn. in Ergebn. der Kunene-Sambesi-Expedit. pag. 163 (1902). — Maculis flavis effusis totum folium tegentibus; pycnidiis epiphyllis, dense gregariis, minutis, punctiformibus, cereis, rufo-brunneis; aecidiis hypophyllis oppositis, irregulariter dispositis aggregatis, minutis, cupulatis, flavo-pallentibus, contextu cellulis polyhedricis, reticulatis, 20–26 μ flavidis; aecidiosporis subgloboso-angulatis, 16-22 × 15–20, levibus. 1469

Hab. in foliis Cruni spec. Kubango pr. Kneio, Afr. austr.

120. **Æcidium pallidum** Schneid. — Syll. VII, pag. 789. — Teste Transchel Ann. Mycol. 1904, p. 157, non in Lythro Salicaria, sed in Epilobio tetragono provenit.

121. **Æcidium Basanacanthæ** P. Henn. Fungi Amaz. I, p. 166, Hedw. 1904 et in Hedw. 1896, p. 259, sub *Æc. Randiæ*.

Hab. in foliis Basanacanthæ sp. Rio Juruá, Marary, Amer. merid. — Nomen mutatum ex eo quod non in *Randia* sed in *Basanacantha* nascitur. Gallas firmas nigras format.

122. **Æcidium saccharidophilum** Speg. Not. synon. pag. 9 in Ann. Mus. Nac. Buenos. Ayres 1908, tom IX. Ita nominandum *Æcid. saccharicolum* Speg. 1898, nec P. Henn. (1896).

123. **Æcidium pseudo-columnare** J. Kühn. — Syll. VII, pag. 826. — Observante cl. Oud. in Rev. Mycol. 1902, ejus habitatio sic emendanda: a pede ad cacumen M. Blauen pr. Badenweiler.

UREDO Pers. — Syll. VII p. 838, IX p. 327, XI p. 222, XIV p. 389, XVI p. 349.

1. **Uredo Verbesinæ-dentatæ** Syd. in Oester bot. Zeitschr. 1902, n. 5. — Soris uredosporiferis hypophyllis, maculis orbicularibus ca. 2 mm. latis, fuscis v. nullis insidentibus, mediocribus, 1–2 mm. diam. lamina foliorum obtectis, obscure brunneis, pulverulentis; uredosporis globosis, subglobosis v. rarius late ellipsoideis, aculeatis, brunneis, 22–31 μ diam., episporio ca. 4–6 μ crasso. 1470

Hab. in foliis vivis Verbesinæ dentatæ, pr. Quero et Ambato Æquatoriæ (F. G. Lehmann).

2. **Uredo Pluncæ** Syd. in Ann. Mycol. I, 1903, p. 333. — Soris uredosporiferis amphigenis, sine maculis, sparsis vel rarius binis vel paucis aggregatis, punctiformibus, pulverulentis, cinnamomeo-brunneis; uredosporis globosis, subglobosis, ovatis v. ellipsoideis, valde dense aculeatis, brunneis 26–32 μ diam. v. 30–40 × 23–28, episporio crassiusculo. 1471

Hab. in foliis vivis Plucheæ camphoratæ, Eustis, Lake Co., Florida Americæ bor. (G. V. Nash).

3. **Uredo Jasoniæ** Henn. in Hedw. 1902, p. (66). — Maculis fusciduli- 1472
lis; soris hypophyllis interdum epiphyllis sparsis, rotundatis, applanato-pulvinatis, flavidis, ca. 1 mm. diam.; sporis ovoideis vel ellipsoideis, hyalino-flavidulis, 22-30 × 18-22, episporio striato-verrucoso.

Hab. in foliis vivis Jasoniæ glutinosæ, Lasnaca, in insula Cypro (O. Warburg).

4. **Uredo Gaudichaudii** Syd. Ann. Mycol. 1903, p. 21. — Soris ure- 1473
dosporiferis hypophyllis, irregulariter sparsis, minutissimis, pulverulentis, ferrugineis; uredosporis globosis, subglobosis v. ovatis, aculeatis, brunneis, 20-30 × 19-25.

Hab. in foliis Blainvilleæ rhomboideæ, Rio de Janeiro, Brasiliæ (Gaudichaud).

5. **Uredo banisteriicola** P. Henn. in Hedw. 1904, p. 80. — Maculis 1474
fuscidulis, rotundatis vel obsoletis; soris amphigenis sparsis, rotundato-pulvinatis, cinnamomeis; uredosporis subglobosis, 20-25 × 18-23, brunneis, verrucoso-echinatis.

Hab. in foliis Polymniæ sylphioidis, Nova Friburgo, pr. Rio de Janeiro Brasiliæ (C. Ule).

6. **Uredo Asteromææ** P. Henn. Engl. Jahrb. 1902, XXXII, p. 37. 1475
— Soris hypophyllis sparsis, pustulatis diutius epidermide flava tectis; uredosporis subglobosis vel ellipsoideis polyhedricis, intus granulato-punctatis, 20-28 × 18-24, episporio flavido.

Hab. in foliis Asteromææ indicæ, Urawa Japoniæ (N. Naubu).

7. **Uredo Garcilassæ** P. Henn. Fungi Amaz. I, p. 160, Hedw. 1904. 1476
— Maculis indeterminatis, fuscidulis; soris hypophyllis gregariis, minutis, pulvinatis, pulverulentis, ferrugineis; uredosporis subglobosis v. ellipsoideis, fusco-brunneis, aculeato-asperatis, 15-20 × 13-18.

Hab. in foliis Garcilassæ rivularis, Tarapoto Perù, Amer. merid.

8. **Uredo scopigena** P. Henn. Fungi Amaz. I, p. 160 (Hedw. 1904). 1477
— Maculis fuscis explanatis, soris amphigenis caulibusque plerumque dense gregariis confluentibus, folia utrinque omnino tegentibus, ferrugineis, ramis scopiforme deformantibus; sporis ovoideis, ellipsoideis, subglobosis, brunneis, 18-35 × 14-24, aculeatis.

Hab. in foliis caulibusque Eupatorii spec. Rio Juruá, Juruá-Miry, Amer. merid.

9. **Uredo Crepidis-integræ** Lindr. Acta Soc. Fauna et Fl. fennica 1902, XXII, n. 3, p. 11. — Soris minutis, punctiformibus, zona pere-exigua pallida circumdatis, epidermide cinctis, sparsis, brunneis; uredosporis subglobosis v. breve late ellipsoideis, 18–28 μ. diam.; membrana flavida, æquali, 2,2 μ. cr; poris germinantibus 4-6, episporio supra eos non protuberante. 1478

Hab. in foliis (caulibusque?) Crepidis integræ. Nagasaki alibique in Japonia.

10. **Uredo Crepidis-japonicæ** Lindr. Acta Soc. Fauna et Fl. fennica 1902, XXII, n. 3, p. 11. — Soris amphigenis, sed sæpius hypophyllis, cinnamomeis, rotundatis, minutis, maculas non generantibus, epidermide initio cinctis; uredosporis subglobosis v. breve late ellipsoideis, 14–18 μ. diam., membrana flavida, crebre tenuiter spinulosa, tenui, æquali, 1 μ. cr.; poris germinat. ternis, inordinatis, episporio supra eos non protuberante. 1479

Hab. in foliis Crepidis japonicæ, Queensland Australiæ. — Sporis minoribus, subglobosis etc. a ceteris speciebus crepidicolis dignoscitur.

11. **Uredo Andryalæ** Syd. in Œster. bot. Zeitschr. 1902, n. 5. — Soris uredosporiferis amphigenis, sine maculis, sparsis, minutis, punctiformibus, epidermide fissa cinctis, brunneis, pulverulentis; uredosporis globosis, subglobosis vel ellipsoideis, echinulatis, brunneis, 22–27 × 16-23, poris germinationis binis instructis. 1480

Hab. in foliis vivis Andryalæ integrifoliæ, Limoges Galliæ (E. Lamy).

12. **Uredo boopidicola** Speg. Myc. Arg. Ser. I, in An. Soc. Cient. Arg. 1899, p. 267. — Maculis quandoque nullis, quandoque pallescenti-flavescentibus, indeterminatis, foliicolis, rarius caulicolis; soris erumpentibus, hemisphæricis, 0,5-1 mm. diam., subcompactiusculis, e ferrugineo-atris; uredosporis subglobosis, e mutua pressione obtuse irregulariterque angulosis, 25–30 × 20–30, levibus tenuiter tunicatis, nubiloso-farctis, ferrugineis. 1481

Hab. in foliis vivis Boopidis squarrosæ, prope Rio Chico Argentiniæ.

13. **Uredo Palicureæ** Fungi Amaz. I, p. 160, Hedw. 1904. — Maculis roseolis vel flavide pallidis, sparsis vel gregariis confluentibusque versiformibus; soris plerumque epiphyllis vel hypophyllis caulicolisque, sparsis vel gregariis, rotundato-pulvinatis, pallidis v. roseolis; sporis subglobosis, ovoideis v. ellipsoideis, hyalinis interdum roseolis v. fuscidulis, 12–20 × 10–18, minute aculeato-subechinatis. 1482

Hab. in foliis caulibusque Palicureæ spec. Huallaga, Yurimaguas, Perù Amer. merid.

14. **Uredo geophilicola** P. Henn. Fungi Amaz. I. p. 161, Hedw. 1904. 1483
— Maculis rotundatis vel effusis, fuscis; soris epiphyllis, circulariter dispositis vel gregarie effusis, pulvinatis, flavo-ferrugineis, dein pulverulentis; sporis ovoideis, hyalino-fuscidulis, asperatis, 15-23 × 12-18 μ.

Hab. in foliis Geophilæ trichoginis, Huallaga, Yurimaguas, Perù Amer. merid. — Ab affini *U. Geophilæ* sporis distincte spinulosis differt.

15. **Uredo Ancylanthi** P. Henn. in Bot. Ergebn. der Kunene-Expedit. p. 158 (1902). — Maculis fuscidulis v. obsoletis; soris hypophyllis sparsis v. aggregatis confluentibusque flavidis v. sulphureis, pulverulentis; sporis ovoideis vel ellipsoideis, 22-32 × 18-23, episporio asperato, flavo. 1484

Hab. in foliis Ancylanthi fulgidi, Quiriri Africæ austr.

16. **Uredo Cephalanthi** Arthur in Bull. of the Torr. Bot. Club. 1902, pag. 231. — Soris generaliter hypophyllis, parvulis, irregulariter bullatis, sine ordine sparsis, pallidis, diu epidermide velatis; sporis initio pedicellatis, obovato-globosis, 16-20 × 20-26, episporio 1 μ. crasso donato, minute echinulatis, poris 4 æquatorialibus. 1485

Hab. in foliis Cephalanthi occidentalis, Palmetto, Fla. Amer. bor.

17. **Uredo Cinchonæ** P. Henn. F. javanici novi, in Hedw. 1902, p. 140. 1486
— Maculis fuscidulis v. obsoletis; soris epiphyllis, sparsis, minutissimis, pulvinatis, diutius tectis, brunneolis, ca. 0,3 mm. diam.; poris ovoideis v. ellipsoideis, intus flavidis, 13-18 × 10-15, episporio hyalino, granulato-verrucoso.

Hab. in foliis Cinchonæ spec. Java.

18 **Uredo Pæderiæ** Syd. in Œsterr. bot. Zeitschr. 1902, n 5 — Soris 1487
uredosporiferis hypophyllis, sine maculis, minutissimis, sparsis v. irregulariter distributis, dilute brunneis; uredosporis globosis, subglobosis v. ellipsoideis, brunneolis, echinulatis, 20-26 μ. diam.

Hab. in foliis Pæderiæ fœtidæ in ins. Comorens. (Schmidt).

19 **Uredo detergibilis** (Thüm.) P. Henn. in Bot. Ergebn. der Ku- 1488
nene Sambesi Expedit. p. 160 (1902). — *Coleosporium detergibile* Thüm. — Syll. VII, p. 756.

Hab. in foliis vivis Plectroniæ huillensis, Longa pr. Napalanka Africæ austr. — Ad *Hemilejam* nec ad *Coleosporium* spectat.

20. **Uredo mkusiensis** P. Henn. in Engl. Bot. Jahrb. 1903, pag. 41. 1489
— Maculis pallidis vel obsoletis; soris hypophyllis sparsis v. gregariis, minutis, flavidulis vel pallidis, dein farinaceis; uredosporis ellipsoideis vel ovoideis sæpe inæquilateralibus, intus flavidis, 15–22 × 10–16, episporio subhyalino crasso, aculeato verrucoso, unilateraliter levi.

Hab. in foliis Psychotriæ spec., Mkusi, Usambara Africæ orient. (Zimmermann). — Ad *Hemilejam* spectat.

21. **Uredo Gardeniæ-Thunbergiæ** P. Henn. in Bot. Ergebn. der Ku- 1490
nene-Sambesi Exped. p. 160 (1902). — Maculis flavescentibus v. fuscidulis, effusis; soris hypophyllis, minutis, dein confluentibus, farinaceis, pallide flavis; uredosporis ovoideis reniformibus v. cordiformibus, lunulatis, 18-28 × 16-22 flavidis, episporio unilateraliter aculeato-asperatis.

Hab. in foliis Gardeniæ Thunbergiæ prope Kitive Afr. austr. — Ad *Hemilejam* spectat.

22. **Uredo huallagensis** P. Henn. Fungi Amaz. I, pag. 161, Hedw. 1491
1904. — Maculis rotundatis fuscidulis, subbullatis; soris amphigenis, oppositis dense gregarie congestis in pulvinis ca. 5 mm. subferrugineis rotundato-applanatis confluentibus; sporis ovoideis vel ellipsoideis, flavo-brunneis, 20-40 × 14-28, episporio flavo-brunneo, aculeato asperato; pedicello interdum usque ad 40 × 3–4, hyalino.

Hab. in foliis Memoræ spec. (Bignoniaceæ,) Tarapoto, Perù. — Forte ad *Uromycetem* spectat; ab *Uredine Memoræ* omnino diversa.

23. **Uredo Nicotianæ** Anastasia, Sacc. et Splend. sp. nov. — Uredo- 1492
soris amphigenis, aureis, subcircularibus, 1–2 mm. diam., erumpentibus et mox nudis, pulvereis, gregariis; uredosporis e globoso ellipsoideis, rarius oblongis, obtusis, 24-32 μ. diam., contextu granuloso amœne aureo; episporio crassiusculo, hyalino verruculoso; pedicellis subnullis.

Hab. in foliis adhuc vivis Nicotianæ quadrivalvis et N. silvestris cultarum in horto experimentali Instituti tabacologici Scafati pr. Neapolim. — Status teleutosporicus hucusque ignotus. In Nicot. silvestri fungillus est plerumque epiphyllus, in N. quadrivalvi vero est plerumque hypophyllus.

24. **Uredo Hammari** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, 1493
p. 107. — Caulicola tumefaciens vel foliicola, amphigena; soris sparsis v. aggregatis, primo epidermide brunneola, bullata tectis, dein farinaceis, pallidis; sporis ovoideis v. ellipsoideis, olivaceo-fu-

scis, 20-30 × 17-21, episporio verrucoso, verrucis subbacillaribus, hyalinis ca. 2 μ. longis, 1 μ. crassis vestito.

Hab. in foliis Hyptidis prope S. Paulo Brasiliæ.

25. **Uredo Lippiæ** Diet. et Holw in Bot. Gaz. 1901, p. 335. — Soris 1494
hypophyllis, sparsis, intense brunneis, pulverulentis; uredosporis globosis vel subellipsoideis, 25–32 × 25–28, episporio intense brunneo, dense echinulato, usque 3 μ. crasso, poris germinationis 2; paraphysibus hyalinis ampulliformibus.

Hab. in foliis Lippiæ Pringlei. Oaxaca in Mexico.

26. **Uredo clerodendricola** P. Henn. F. javanici novi, in Hedw. 1902, 1495
p. 140. — Maculis nullis; soris epiphyllis sparsis, minutis, pulvinatis, epidermide brunnea diutius tectis, 0.2–0.3 mm. diam.; uredosporis ovoideis, ellipsoideis, interdum subglobosis, mtus flavis, 30-40 × 25-35, episporio subhyalino, aculeato; aculeis ca. 2 μ. longis.

Hab. in foliis Clerodendri inermis. Buitenzorg Javæ.

27. **Uredo Scholzii** P. Henn. Afr. orient. II. in Bot. Jahrb. XXVIII. 1496
p. 34. — Soris minutis, gregarie hypophyllis, flavo-aureis, pallescentibus, farinosis; uredosporis ovoideis vel ellipsoideis, mtus aureis dein hyalinescentibus 20–35 × 16–24, episporio aculeato-asperato, aculeis hyalinis, ca. 2 μ. long.

Hab. in foliis Clerodendri, Usambara Afr. or. (Scholz).

28. **Uredo Viticis-polygamæ** P. Henn. Fung. paraenses II. in Hedw. 1497
1902, pag. 15. — Maculis rotundatis, epiphyllis saltuis, oppositis ferrugineis; soris hypophyllis in vitio maculantibus, fusis; uredosporis subglobosis v. ellipsoideis, 20–30 × 18–24, episporio brunneo, aculeato-asperato.

Hab. in foliis Viticis polygamæ in horto botanico, Pará Amer. austr.

29. **Uredo Cordiæ** P. Henn. Fungi Amaz. I. p. 163. Hedw. 1904 1498
— Soris folii- vel ramicolis et hæc organa omnino deformantibus, valde incrassatis confluentibus, ferrugineis pulverulentis; sporis ovoideis, ellipsoideis vel subglobosis, fuscis, 20–30 × 15–24, episporio ferrugineo verrucoso.

Hab. in caulibus foliisque Cordiæ spec. Tarapoto, Peru Amer. merid. — Ad *Uromycetem Cordiæ* non referenda.

30. **Uredo Peckoltiæ** Syd. in Ann. Mycol. I. 1903, p. 382. — Soris 1499
uredosporiferis amphigenis, præsertim epiphyllis, maculis vix distinctis insidentibus, minutis, plerumque in greges rotundatos ca. 2-4 mm. diam. concentrice dispositis, epidermide cito tectis, tandem poro minuto apertis, obscure brunneis; uredosporis subglobosis

v. ovatis, aculeatis, brunneolis, 22-32 ≈ 16-26; paraphysibus copiosis, cylindraceo-clavatis, dilute brunneolis, plus minusve curvatis, usque 70 µ. longis.

Hab. in foliis vivis Peckoltiæ pedalis, Goyaz Brasiliæ (Gardner).

31. **Uredo juruensis** P. Henn. Fungi Amaz. I, p. 167, Hedw. 1904. 1500
— Maculis flavido-fuscidulis effusis; soris hypophyllis effusis, minutis, flavidis, farinaceo-pulverulentis; uredosporis ovoideis ellipsoideis vel subtriangularibus, intus flavidis, 13-20 ≈ 10-17, episporio hyalino, verrucoso.

Hab. in foliis Tabernæmontanæ spec. Fortaleza, Rio Juruá. Amer. merid.

32. **Uredo plumeriicola** P. Henn. Fungi Amaz. I, pag. 161, Hedw. 1501
1904. — Maculis rotundatis, plus v. minus gregariis; soris hypophyllis, gregariis, interdum confluentibus, rotundato-angulatis, epidermide flavo-brunnicola tectis v. circumdatis, 0,5-1 mm. diam.; uredosporis oblonge ellipsoideis vel ovoideis, 20–30 ≈ 16-20, intus fuscidulis, episporio subhyalino tessellato-verrucoso.

Hab. in foliis Plumeriæ spec., Huallaga, Perù Amer. merid. — Forte ad *Coleosporium Plumeriæ* spectat.

33. **Uredo Carpodini** P. Henn. in Bot. Ergbn. du Kunene-Expedit. 1502
p. 158 (1902). — Maculis flavis irregularibus; soris hypophyllis sparsis, minutis, rufo-brunneis, diutius tectis; uredosporis ellipsoideis v. ovoideis, fuscis, 18-24 ≈ 17-22, episporio echinato-asperato, aculeis hyalinis, ca. 3 µ. long.

Hab. in foliis Carpodini leucanthi. Kuito prope Kutue et Sobi Africæ austr.

34. **Uredo Clitandræ** P. Henn. in Engl. Bot. Jahrb. 1903, pag. 41. 1503
— Maculis flavidulis subrotundatis; soris hypophyllis sparsis vel subgregariis, subcastaneis, minutis; uredosporis subglobosis, ellipsoideis v. ovoideis, 26-32 ≈ 22-28, episporio 4-6 µ. incrassato, brunneo vel subhyalino aculeato.

Hab. in foliis Clitandræ Watsonianæ, Ost-Usambara Afr. orient. (Zimmermann).

35. **Uredo Symbolanthi** P. Henn. Fungi Amaz. I, p. 161, Hedw. 1904. 1504
— Maculis flavobrunneis, rotundatis vel irregulariter confluentibus; soris sparse gregariis, plerumque epiphyllis vel amphigenis, diutius epidermide alutacea tectis, pulvinatis, 0,3 mm. diam.; uredosporis oblonge ovoideis vel ellipsoideis, flavide brunneolis, acu-

leato-asperatis. 30-45 × 20-30; paraphysibus obvallatis, subcylindraceis, obtusis, hyalinis vel flavido-brunneis, 30-80 × 6-10.

Hab. in foliis Symbolanthi spec. (Gentianaceæ) Cerro de Escaler, Perú. Amer. merid. — Verisimiliter ad *Uromycetis* speciem spectat.

36 **Uredo Opheliæ** Syd. Ann. Mycol. 1903, pag. 21. — Soris uredosporiferis hypophyllis v. caulicolis, in folio sparsis vel subgregariis, hemisphæricis, minutissimis, punctiformibus cinnamomeis; uredosporis subglobosis v. sæpius ovatis v. ellipsoideis, aculeato-verrucosis, flavescentibus, 16–27 × 14–20. 1505

Hab. in foliis caulibusque Swertiæ (Opheliæ) angustifoliæ in India orient.

37. **Uredo Copelandi** Syd. Ann. Mycol. 1904. p. 31. — Soris uredosporiferis amphigenis, sparsis v. paucis aggregatis, non confluentibus, hemisphæricis, pseudoperidio inclusis, flavis; uredosporis subglobosis, ellipsoideis v. piriformibus, verrucoso-echinulatis, membrana hyalina, protoplasmate aurantiaco repletis, 18–35 × 12–20. 1506

Hab. in foliis vivis Arctostaphyli patulæ, Sisson Californiæ, A. nevadensis, Mt. Eddy, Siskiyon Co. Amer. bor.

38. **Uredo chrysophyllicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 106. — Maculis atrorufis, plerumque rotundatis; soris amphigenis sparsis v. aggregatis, primo epidermide flavida tectis, dein erumpentibus, pallidis, applanato-rotundatis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus flavidis, 14–24 × 12–16, episporio crasso, hyalino, minute aculeato. 1507

Hab. in foliis Chrysophylli spec. in horto botanico S. Paulo Brasiliæ.

39. **Uredo Gliæ** Lindroth, Die Umbellif. Ured. 1902, p. 175. — Uredosoris minutis, rotundatis v. ellipsoideis, hypophyllis, in maculis irregularibus, flavidis vel brunneolis, epidermide initio elevata cinctis; uredosporis ellipsoideis, 33–48 × 18–28, tunica æquali, 2-2,5 μ. cr., flavida vel hyalina, minute sparse aculeolata; poris germinativis vix manifestis. 1508

Hab. in foliis Annesorrhizæ (Gliæ) gummiferæ, Constantieberg Afric. austr. (Mac Owan).

40. **Uredo Panacis** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis amphigenis, præsertim hypophyllis, irregulariter sparsis v. aggregatis, rotundatis v. irregularibus, subochraceis; uredosporis globosis, subglobosis v. ellipsoideis, aculeato-verruculosis, subhyalinis, 17-22 μ. diam. 1509

Hab. in foliis vivis Panacis Pseudo-ginseng, Sikkim Indiæ orient. (I. D. Hooker fil. et Thomson).

41. **Uredo Helini** Syd. in Œsterr. bot. Zeitschr. 1902, n. 5. — Soris 1510
uredosporiferis hypophyllis, maculis minutis 1–3 mm. latis, orbicularibus, fuscis insidentibus, solitariis vel paucis in quaque macula aggregatis, minutis, dilute flavo-brunneis; uredosporis globosis, subglobosis v. ellipsoideis, subtilissime echinulatis v. sublevibus, flavescentibus, 16-23 × 14-19.

Hab. in foliis vivis Helini lanceolati, India orient. (Hooker fil. et Thomson).

42. **Uredo Zizyphi-vulgaris** P. Henn. Einige neue japan. Ured. III, 1511
in Hedw. 1902, p. 21. — Maculis subpallescentibus; soris hypophyllis sparsis v. gregariis, interdum nervos sequentibus, minutis, pallide ferrugineis, vix 0,5 mm. diam.; uredosporis ovoideis v. ellipsoideis, hyalino-brunneolis, granulatis, 16-24 × 12-16.

Hab.. in foliis Zizyphi vulgaris var. inermis, Tosa Japoniæ.

43. **Uredo Allophili** P. Henn. in Engl. Bot. Jahrb. 1903, p. 41. — Ma- 1512
culis fuscidulis, plus v. minus parvis vel indeterminato-explanatis; soris hypophyllis sparsis, minutis, pallidis vel stramineis, pulvinato-applanatis; uredosporis subglobosis, ovoideis vel ellipsoideis, 13-20 × 12-17, episporio flavido aculeato; paraphysibus clavatis, obtusis hyalinis, 20-30 × 8-10.

Hab. in foliis Allophili sp. (Sapindaceæ) Ost-Usambara Africæ orient. (Engler).

44. **Uredo Maprouneæ** P. Henn. Fungi Amaz. I, p. 163, Hedw. 1904. 1513
— Maculis violaceis, sanguineis vel fuscidulis, rotundatis vel irregularibus; soris hypophyllis sparsis vel aggregatis, pulvinatis, epidermide alutacea fissa velatis; sporis variiformibus, oblonge ovoideis, ellipsoideis, clavatis vel subtriangularibus rectis vel curvulis, primo hyalinis dein flavo-brunneis, aculeatis, interdum subpedicellatis, 20-30 × 15-20, paraphysibus subclavatis, brunneis, ca. 20 × 10.

Hab. in foliis Maprouneæ guianensis, Tarapoto et Yurimaguas, Perù Amer. merid. — Probabiliter ad *Uromycetem* spectat.

45. **Uredo maceiensis** P. Henn. Fungi Amaz. I, p. 163, Hedw. 1904. 1514
— Maculis fuscis, irregulariter effusis; soris sparsis hypophyllis vel caulicolis, plerumque gregariis tuberculatis ferrugineis; uredosporis ovoideis, subglobosis vel ellipsoideis interdum inæquilateralibus, ca. 20–30 × 15-25, episporio castaneo v. brunneo asperato; paraphysibus sparsis clavatis, brunneis, ca. 30-40 × 15-18.

Hab. in foliis caulibusque Johannesiæ principis, Alagoas, Maceio, Amer. merid.

46. **Uredo Hibisci** H. et P. Sydow, in Hedw. 1901, p. (128). — Soris 1515
uredosporiferis hypophyllis, per totam foliorum superficiem distributis, minutis, rotundatis v. oblongis, diutius tectis, demum epidermide cinctis v. semivelatis, pulverulentis, dilute ochraceis; uredosporis globosis, subglobosis vel ellipsoideis, subtiliter echinulatis, flavis, 16-22 μ. diam. vel 21-27 × 14-20.

Hab. in foliis vivis Hibisci syriaci, St. Martinsville, Louisiana Americæ bor. (A. B. Langlois).

47. **Uredo Haplophylli** P. Henn. Fungi Amaz. IV in Hedw. 1904. — 1516
Maculis rotundatis vel effusis, fuscis; soris hypophyllis sparsis, pulvinatis, primo tectis dein castaneis; sporis subglobosis vel ellipsoideis, fuscis, verrucosis, 18-23 × 14-17.

Hab. in foliis Haplophylli sp., Iquitos, Rio Amazonas Perù.

48. **Uredo Medicaginis** Speg. Myc. argent. ser. II, 1902, p. 66. — Ma- 1517
culis diffusis, pallescentibus; acervulis sparsis v. gregariis rarius confluentibus, 0,5-1 mm. diam. applanatis, epidermide disrupta cinctis; soris sæpius hypophyllis, erumpentibus, ferrugineis; uredosporis aparaphysatis, 18-20 μ. diam. globosis, grosse 1-guttulatis, laxe papilloso-aculeolatis, fulvis.

Hab. ad folia viva Medicaginis denticulatæ, in pratis prope La Plata Argentinæ.

49. **Uredo mararyensis** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1518
— Maculis rotundatis concavis; soris hypophyllis in pustulis, pulvinatis, ferrugineis tuberculatis, 2-3 mm. diam. aggregatis v. sparsis pulverulentis; sporis ovoideis vel ellipsoideis, fusco-cinnamomeis, asperatis, 15-20 × 12-15.

Hab. in foliis Dalbergiæ spec., Marary, Rio Juruá Amer. merid. — Ab *U. Dalbergiæ* soris rubiginosis firmulis sporisque aculeolatis obscurioribus distinguenda.

50. **Uredo nidulans** Syd. in Ann. Mycol. I, 1903, p. 332. — Soris 1519
uredosporiferis hypophyllis, maculis flavescentibus indeterminatis insidentibus, perexiguis, in greges usque 4 mm. latos laxe dispositis vel subinde subsparsis, pulverulentis, ochraceis v. fulvo-ochraceis; uredosporis subglobosis v. piriformibus, breviter echinulatis, flavescentibus, 16-25 × 14-19; paraphysibus copiosis, fasciculatim soros uredosporiferos circumdantibus, plus minusve curvulis, cylindraceis, sursum non incrassatis sed leniter attenuatis, flavo-brunneis, usque 100 μ. longis, 5-8 μ. latis.

Hab. in foliis Dalbergiæ foliolosæ, Guanai-Tismani Boliviæ (Miquel Bang).

51. **Uredo Sojæ** P. Henn. in Hedw. 1903, p. 108. — Maculis fuscis, 1520
minutis; soris hypophyllis, raro epiphyllis, sparsis, interdum aggregatis rotundato-pulvinatis, ferrugineis, epidermide fuscidula diutius tectis; uredosporis subglobosis, ovoideis v. ellipsoideis, 18-25 × 15-18, episporio brunneo, verrucoso; paraphysibus sparsis clavatis, interdum curvulis, 20-30 × 10-15 hyalinis.

Hab. in foliis Glycinis Sojæ, Shimoda, Tosa Japoniæ (Yoshinaga).

52. **Uredo margine-incrassata** P. Henn. Fungi paraenses II, in Hedw. 1521
1902, p. 15. — Maculis gregariis vel sparsis, rotundatis, fuscis, incrassato-obscuriorique cingulatis, 2-3 cm. diam.; soris amphigenis, minutis; sporis subglobosis, ellipsoideis v. ovoideis, angulatis, castaneis, 30-40 × 25-35, episporio aculeato-asperato, aculeis hyalinis, ca. 2 μ. longis.

Hab. in foliis Lonchocarpi spec. Pará, Amer. austr.

53. **Uredo Desmodii-pulchelli** Syd. in Œsterr. bot. Zeitschr. 1902, n. 5. 1522
— Soris uredosporiferis hypophyllis, in hypophyllo maculas minutas 1–2 mm. diam. orbiculares fuscas generantibus, in epiphyllo sine maculis, sparsis, plerumque solitariis in quaque macula, minutissimis, perexiguis, flavo-brunneis, pulverulentis; uredosporis ellipsoideis, ovatis v. subglobosis, subtiliter verruculosis, flavidis, 18-25 × 14-19.

Hab. in foliis vivis Desmodii pulchelli, Hongkong Sinarum (Dr. Naumann).

54. **Uredo Desmodii-leiocarpi** P. Henn. Fungi S. Paulenses I, in 1523
Hedw. 1902, p. 107. — Maculis rufis, minutis; soris sparsis amphigenis, minutis, pallide flavidis; uredosporis subglobosis v. ovoideis, flavidis, 16-21 × 15-19, episporio echinulato.

Hab. in foliis Desmodii leiocarpi, in horto botanico, S. Paulo Brasiliæ.

55. **Uredo tephrosiicola** P. Henn. Fungi Amaz. I, pag. 163, Hedw. 1524
1904. — Maculis brunneolis, effusis; soris amphigenis sparsis, oblonge vel rotundato-pulvinatis, epidermide fissa subferruginea velatis; sporis ovoideis, ellipsoideis vel subglobosis, brunneis, minute verrucosis, 18-28 × 15-24.

Hab. in foliis Tephrosiæ spec., Pompas prope Tarapoto in Perù, Amer. merid. — Verisimiliter ad *Uromycetis* speciem referenda; ab *U. Tephrosiæ* diversa.

56. **Uredo bomfimensis** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1525
— Maculis flavidis rotundatis vel effusis; soris hypophyllis gregarie sparsis, depresso-pulvinatis, epidermide alutacea fissa cingulatis vel tectis; sporis ovoideis vel ellipsoideis, interdum subtriquetris, flavobrunneis, verrucosis, 13-20 ≈ 10-14.

Hab. in foliis Pithecolobii spec., Bom Fim, Rio Juruá, Amer. merid. — Ad *Uromycetis* speciem probabiliter referenda; ab *U. Pithecolobii* omnino diversa.

57. **Uredo Bauhiniæ** P. Henn. Fungi Amaz. I, p. 162, Hedw. 1904. 1526
— Maculis fuscidulis rotundatis; soris amphigenis, sparsis v. aggregato-confluentibus, applanato-pulvinatis, pallide flavis; sporis ellipsoideis ovoideis, hyalino-flavidulis vel brunneis, aculeatis, 15-22 ≈ 10-15; paraphysibus subclavatis, hyalino-fuscidulis, ca. 10-15 ≈ 4-5.

Hab. in foliis Bauhiniæ spec. Juruá-Miry, Rio Juruá et Yurimaguas in Perù, Amer. merid. — Ab *Ured. bauhinicola* distincta.

58. **Uredo amazonensis** P. Henn. Fungi Amaz. IV in Hedw. 1904, 1527
p. 58. — Maculis rotundatis vel effusis, flavidis; soris hypophyllis, sparsis vel gregariis, pulvinatis, flavidis; sporis ellipsoideis, subglobosis vel ovoideis, flavido-hyalinis, 20-35 ≈ 18-20, aculeato-echinatis.

Hab. in foliis Bauhiniæ spec., Rio Juruá Brasiliæ.

59. **Uredo excipulata** Syd. in Ann. Mycol. 1904, p. 350. — Pycnidiis 1528
amphigenis, minutis, numerosis in greges rotundatos 1-3 mm. d. dense dispositis; soris uredosporiferis circulo non interrupto circ. 1 mm. lato pycnidia cingentibus, epidermide rufo-brunneo-tincta primo tectis, dein eam disrumpentibus et ab ea ad marginem conspicue cinctis vel partim velatis, subceraceis, ferrugineo-brunneis; uredosporis ovato-piriformibus, apice subinde incrassatis, aculeato-verruculosis, ex hyalino flavo-brunneolis, 20-27 ≈ 11-17.

Hab. in foliis vivis Ingæ Inicuil, Mexico (Pringle ex F. Neger).

60. **Uredo crotalariicola** P. Henn. in Bot. Ergebn. der Kunene-Sam- 1529
besi Expedit. pag. 158 (1902). — Maculis fuscidulis; soris hypophyllis, circulariter dispositis, minutis, ferrugineis; uredosporis subglobosis, ovoideis v. late ellipsoideis, brunneis, 22-30 ≈ 20-29, episporio fusco v. castaneo, 5-7 μ. cr., minute verrucoso.

Hab. in foliis Crotalariæ lachnocladæ in Africa. — Probabiliter ad *Uromycetem* spectat.

61. **Uredo Theresiæ** Neger in Beihefte Bot. Centralbl. XIII, an. 1902, p. 78, fig *a-b*. — Soris hypophyllis minutissimis vix conspicuis, maculis indeterminatis, flavescentibus insidentibus, paucis in acervulum irregularem congestis, hemisphæricis, 0,5 mm. diam., epidermide diu tectis; uredosporis ovoideis obovatis v. globosis 18–22 × 16-20, episporio tenui, breviter echinulato, achroo præditis; poris germinativis numerosis (5-7) sed vix conspicuis instructis, paraphysibus mixtis. 1530

Hab. in foliis Crotalariæ anagyroidis inter Il Moral et Machin in Columbia Americæ austr. — Ab *U. Crotalariæ* magnitudine et colore sporarum nec non numero pororum recedens.

62. **Uredo Cassiæ-glaucæ** Syd. in Ann. Mycol. 1903, I, p. 331. — Soris uredosporiferis amphigenis, sparsis v. subinde paucis, 2-3-associatis, sæpe ad nervos evolutis, minutis, subpulverulentis, ochraceo-brunneis; paraphysibus nullis; uredosporis subglobosis, ellipsoideis v. oblongis, breviter echinulatis, flavis, 12-18 × 10–14. 1531

Hab. in foliis vivis Cassiæ glaucæ, Hohefeldthafen Novæ Guineæ (O. Warburg).

63. **Uredo Socotræ** Syd. in Ann. Mycol. I, 1903, p. 332. — Soris uredosporiferis amphigenis, sine maculis, plerumque in greges irregulares dispositis irregulariterque confluentibus, epidermide fissa cinctis vel semitectis, ochraceis; paraphysibus non visis; uredosporis subglobosis, ellipsoideis v. oblongis, aculeato-verruculosis, flavescentibus, 12-19 × 10–14. 1532

Hab. in foliis vivis Cassiæ Sophoræ, Kischen, in insula Socotra (G. Schweinfurth).

64. **Uredo Cassiæ-stipularis** Syd. in Ann. Mycol. I, 1903, p. 331. — Soris uredosporiferis amphigenis, maculis minutis fuscis, ca. 2–3 mm. diam. insidentibus, sparsis, solitariis vel in greges minutos concentrice dispositis, minutis, epidermide fissa cinctis, ochraceis v. ochraceo-fuscis; paraphysibus non visis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavo-brunneis, 22-27 μ. d. vel 22-30 × 16–25, episporio ca. 2,5-3 μ. crasso. 1533

Hab. in foliis vivis Cassiæ stipularis, Quillota in Chile (Bertero).

65. **Uredo ngamboensis** P. Henn. in Engl. Bot. 1903, p. 42. — Maculis fuscidulis vel obsoletis; soris hypophyllis interdum epiphyllis, sparsis vel aggregatis, ferrugineis, epidermide rupta, pallida cinctis; uredosporis subglobosis vel ellipsoideis, interdum inæquilateralibus, 16-22 × 12-20, episporio brunneo, aculeato-verrucoso. 1534

Hab. in foliis Albizziæ Lebbek, Ngambo, Ost-Usambara Africæ orient. (Zimmermann).

66. **Uredo Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 106. — Maculis fuscis; soris ramicolis v. phyllodiicolis amphigenis gregariis, angulari-pulvinatis, diutius epidermide pallida tectis, dein subpulverulentis; uredosporis ellipsoideis v. ovoideis, intus flavido-aurantiis, 12–18 × 10–13, episporio hyalino, granulato-verrucoso. 1535

Hab. in foliis et petiolis Acaciæ sp., in horto bot. S. Paulo Brasiliæ.

67. **Uredo ochraceo-flava** P. Henn. Fungi costaricenses, I, in Hedw. 1902, p. 101. — Soris epiphyllis in maculis rotundatis dispositis, aggregatis, pulvinato-hemisphæricis, minutis, epidermide ochracea tectis, dein pulverulentis, flavis; sporis ovoideis vel ellipsoideis, clavatis, flavidis, 22-35 × 20–28, episporio verrucoso, verrucis conoideis vel hemisphæricis, 2,5–4 × 2–3 hyalinis. 1536

Hab. in foliis Rubi pr. Santa Maria De Dota, Amer. centr.

68. **Uredo imperialis** Speg. — Syll. XVI, p. 354. — f. **ramulicola** Speg. in An. Soc. Cient. Argent. 1899, p. 276. 1537

Hab. ad ramos Rubi imperialis, in silvis, prope Tucuman Amer. occid. (F. Sivori). — Forma insignis, tùmores lignosos majusculos v. maximos (nucis v. pugni magnitudine) efficiens; uredosporæ crustaceæ, superficiem matricis obtegentes, aurantiacæ ut in typo.

69. **Uredo Pruni** Cast. — Syll. VII, p. 858 et Speg. in Ann. Soc. Cient. Arg. 1899, p. 268. — Cfr. Mac Alp. in Ann. mycol. 1904, p. 344.

Hab. ad folia languida Persicæ vulgaris prope Cordoba Argentinæ (T. Stuckert). — Status teleutosporicus adhuc ignotus est. In speciminibus cordubensibus adsunt sporæ dimorphæ; sporæ alteræ (teleutosporæ v. mesosporæ?) obovatæ, in parte antica v. supera crasse acuteque umbonatæ leves obscureque fuligineæ, ceterum laxe majusculeque papillosæ, pallidiores 1-guttulatæ 30–40 × 16-20, pedicello hyalino brevi 10-20 × 5–7, mox fluxili fultæ; alteræ, uredosporæ veræ! globosæ 18-20 μ. diam., dense grosseque papillosæ, tenuiter tunicatæ, uniguttulatæ, pallidæ fulvæ.

70. **Uredo Pruni-Maximowiczii** P. Henn. Engl. Jahrb. 1902, XXXII, pag. 37. — Soris in ramulis junioribus petiolisque, incrassatis et curvatis, epidermide fusca tectis; sporis subglobosis ovoideis vel ellipsoideis, angulatis, pallide flavis, levibus, 9-15 × 7–12. 1538

Hab. in ramis junioribus Pruni Maximowiczii, Nikko Japoniæ (M. Shirai).

71. **Uredo Goeldiana** P. Henn. in Hedw. 1903, pag. (188). — Soris 1539
gregariis, plane pulvinatis, cinereo-flavis, dein aurantio-farinosis; uredosporis ellipsoideis v. ovoideis, intus aurantio-guttulatis, 15–25 × 13–18, episporio hyalino verrucoso.

Hab. in fructibus Eugeniæ spec. Cambucò, Parà Brasiliæ (Göldi).

72. **Uredo kampuluvensis** P. Henn. in Bot. Ergebn. der Kunene- 1540
Sambesi Expedit. p. 159 (1902). — Maculis ferrugineis minutis; soris hypophyllis gregariis, confluentibus, minutis, ferrugineis, pulverulentis; paraphysibus oblonge clavatis, curvulis, hyalino-fuscidulis, 20-40 × 6-10 circumdatis; uredosporis ovoideis, ellipsoideis v. reniformibus, unilateraliter curvulis, aurantiacis, ochraceis, aculeato-asperatis, 18-23 × 15-21.

Hab. in foliis Combreti Baumii et Baphiæ cornifoliæ, Kampoluve Africæ austr. — Licèt in matricibus tam diversis, species omnino eadem est.

73. **Uredo longaensis** P. Henn. in Bot. Ergebn. der Kunene-Sambesi 1541
Expedit. p. 159 (1902). — Maculis flavis v. fuscis effusis; soris hypophyllis, epidermide bullata, brunnea diutius tectis, dein erumpentibus; uredosporis subglobosis, ovoideis vel ellipsoideis, sæpe angulatis, fuscidulis 18–23 × 15-21, episporio sublevi, fuscidulo.

Hab. in foliis Combreti Baumii, Longa Africæ austr.

74. **Uredo Dissotidis-longicaudæ** P. Henn. in Bot. Ergebn. der Ku- 1542
nene-Sambesi Expedit. p. 159 (1902). — Soris epiphyllis, striiformibus, pustulatis, epidermide fissa brunneola velatis; uredosporis subglobosis v. ellipsoideis, angulatis, hyalino-subfuscidulis vel brunneolis, 16–22 × 15-20, punctulatis.

Hab. in foliis Dissotidis longicaudæ, Kampoluve Afr. austr.

75. **Uredo Cedrelæ** P. Henn. F. javanici novi in Hedw. 1902, p. 140. 1543
— Maculis rotundatis, fuscis, dein exaridis; soris hypophyllis suborbiculariter dispositis v. nervos sequentibus, pulvinatis, epidermide fusca tectis dein nudis; uredosporis subglobosis, ovoideis v. ellipsoideis, hyalino-fuscidulis v. brunneis, 14-18 × 12-15, episporio aculeato-asperato.

Hab. in foliis Cedrelæ spec. in Java orient.

76. **Uredo floridana** H. et P. Sydow, in Hedw. 1901, pag. (129). — 1544
Soris uredosporiferis hypophyllis, maculis indeterminatis flavidis

insidentibus, sparsis vel confluentibus, flavo-aurantiacis, pulverulentis; uredosporis ellipsoideis vel ovoideis, verruculosis, flavidis, 20-30 × 14-20, episporio hyalino-flavido, 1,5-2 μ. crasso.

Hab. in foliis Mentzeliæ floridanæ in Florida Americæ bor. (S. M. Tracy).

77. **Uredo Lindsææ** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. 1545
— Melampsorella; maculis atro-fuscis vel ferrugineis, rotundatis vel confluentibus subinflatis; soris hypophyllis sparse gregariis punctiformibus, flavidis vel atrobrunneis, paraphysibus obvallatis, fasciculato-connexis, clavatis, curvulis vel hamatis, brunneis, ca. 30-40 × 10-16, circumdatis; sporis ovoideis, ellipsoideis vel subglobosis, primo hyalinis dein castaneis, verrucosis, 18-30 × 15-23.

Hab. in foliis Lindsææ Ulei, Rio Juruá, Juruá-Miry, Amer. merid. — Verisimiliter matrix est *Litsæa* nec *Lindsæa*.

78. **Uredo paranensis** Penningt. Anal. Soc. Cientif. Argent. 1902, LIII, p. 269 (extr. p. 9). — Maculis pallescentibus, circularibus; soris erumpentibus, fulvo-aurantiis, hypophyllis nec confluentibus; uredosporis globosis, fulvo-aurantiis intus granulosis, crasse tunicatis, 30-33 μ. diam., episporio leviter echinulato. 1546

Hab. in foliis Mogiphanis glaucæ in silvis prope Paraná Miní et Paraná Guazu Brasiliæ. — An status uredosporicus *Uromycetis platensis?*

79. **Uredo Thesii-decurrentis** P. Henn. in Hedw. 1901 p. (125). — 1547
Soris amphigenis v. caulicolis, oblongis v. rotundatis, subceraceis, pallide ferrugineis; uredosporis subglobosis pallide brunneis, punctato-granulatis, 16-18 μ.

Hab. in foliis caulibusque Thesii decurrentis prope Sakawa in prov. Tosa Japoniæ (T. Yoshinaga).

80. **Uredo Kriegeriana** Syd. in Œster. bot. Zeitschr. 1902, n. 5. — 1548
Soris uredosporiferis hypophyllis, maculis flavescentibus indeterminatis insidentibus, sparsis v. laxe gregatim dispositis, minutissimis, perexiguis, flavidis, pulverulentis; uredosporis subglobosis v. ellipsoideis, tenuiter echinulatis, aurantiacis, 21-27 × 15-22, poris germinationis pluribus præditis.

Hab. in foliis vivis Cannabidis sativæ, in horto prope Schandau Saxoniæ (W. Krieger).

81. **Uredo moricola** P. Henn. F. javanici novi, in Hedw. 1902, p. 140. 1549
— Maculis fuscidulis, indeterminatis; soris hypophyllis sparse gregariis, paginam totam interdum omnino occupantibus, sæpe confluentibus, ferrugineis, primo tectis, dein nudis; uredosporis ovoi-

deis, ellipsoideis v. subglobosis, hyalino-fuscidulis, 16-23 × 13-20, episporio aculeato-asperato.

Hab. in foliis Mori indicæ, Java orient.

82. **Uredo consanguinea** Syd. in Œsterr. bot. Zeitschr. 1902, n. 5. — Soris uredosporiferis hypophyllis, in epiphyllo maculas fuscas rotundatas brunneo-limitatas, 2-4 mm. latas generantibus, in greges rotundatos v. irregulares dispositis vel hinc inde sine ordine distributis, minutis, convexis, compactiusculis, sanguineis; uredosporis globosis, subglobosis, v. late ellipsoideis, aculeatis, ex flavido demum rufo-brunneis, 22-30 μ. diam. 1550

Hab. in foliis vivis Dorsteniæ multiformis, Rio de Janeiro Brasiliæ (Rudio).

83. **Uredo Trabutii** Pat. in Bull. Soc. Myc. France 1901, p. 187. — Maculis amphigenis, sparsis, orbicularibus, 2-4 mm. latis, brunneis; soris hypophyllis, minutis, 130-150 μ. diam., solitariis vel 2-5 ad centrum macularum dispositis, diu tectis, dein erumpentibus, obscure fuscis; uredosporis globosis vel obovatis, 20-23 × 16-18, episporio tenui, hyalino, minutissime asperulo, contentu achroo. 1551

Hab. in foliis Fici levigatæ prope Alger Africæ sept.

84. **Uredo nootkatensis** Trelease, Harrim. Alaska Exped. Crypt. p. 36. — Soris subhemisphæricis, circ. 0,5 mm. diam., saturate aurantiis; sporis globosis v. breviter ovoideis, membrana tenui, hyalina, radiatim striata et leviter asperula, 28-31 μ. diam.; pedicellis hyalinis, gracilibus, paullo infra sporam secedentibus. 1552

Hab. in foliis Chamæcyparis nootkatensis, Hot Spring, Baranof Island Alaska (Trelease).

85. **Uredo aurantiaca** Montem. Una nuova uredinea parassita delle Orchidee in Atti R. Ist. Bot. di Pavia vol. VIII. 1902, tab. IV, fig. 1-7. — Maculis nullis; soris epi- vel hypophyllis, in stromate myceliari insitis sparsis, hinc inde 3-6-aggregatis, primo epidermide et pseudoperidio tenui tectis, demum erumpentibus et epidermide rupta cinctis, pulverulentis, interdum setulis sterilibus præditis, aurantiacis; uredosporis polymorphis, rotundatis v. ovatis vel oblongis et irregulariter angulatis, dilute flavis, 20-25 × 16-20 episporio crassiusculo et minute verruculoso vel levi instructis, pedicello hyalino 15-20 μ. long. fultis. 1553

Hab. in foliis Oncidii Cavendishiani, in calidariis horti botanici Pavia, Italia bor.

86. **Uredo Oncidii** P. Henn. Fungi paraenses II, in Hedw. 1902, 1554

p. 15. — Maculis epiphyllis v. amphigenis, rotundato-angulatis, sæpe confluentibus, incrassatis. atro-fuscis; soris gregariis v. sparsis, pustulatis, diutius epidermide pallida, fissa tectis, fuscidulis; uredosporis oblonge ovoideis v. ellipsoideis, utrinque obtusis, 20–30 × 13-18, episporio fusco, granulato vel subaculeato-verrucoso.

Hab. in foliis Oncidii Lanceani, Parà, Amer. austr.

87. **Uredo Wittmackiana** P. Henn. et Klitzing. Ein neuer schädl. 1555
Rostpilz aus Mexico, 1904. — Maculis rotundatis flavidis v. fuscidulis; soris epiphyllis pulvinatis, subconcentrice dispositis, ca. 0,5-1 mm. diam., primo epidermide flavida basi obscuriore zonata tectis, dein sublongitudinaliter erumpentibus, aurantio-flavis; uredosporis ovoideis, ellipsoideis v. oblongis, vertice rotundatis, basi interdum apiculatis, intus oleoso-aurantiaco-guttulatis 30-40 vel 20-25 µ. diam., episporio usque ad 5 µ. cr., echinato-aculeato, hyalino.

Hab. ad folia viva Epidendri sp. Orizaba Mexico (prof. L. Wittmack). — Ab *Uredine Epidendri* differt maculis flavo-fuscis, nec sanguineo-marginatis, soris brunneis etc.

88. **Uredo Floscopæ** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1556
— Maculis ferrugineis, rotundatis; soris amphigenis, sparsis vel aggregatis, cinnamomeis; sporis ovoideis, ellipsoideis vel subglobosis, fusco-brunneis, 16-26 × 13-20, episporio cinnamomeo, aculeato.

Hab. in foliis Floscopæ peruvianæ. Rio Juruá, Cachoeira et Yurimaguas Perù, Amer. merid.

89. **Uredo Ophiopogonis** Syd. in Ann. Mycol. 1903, I, pag. 332. — 1557
Soris uredosporiferis hypophyllis, sparsis, minutissimis, vix 300-350 µ. diam., epidermide diutius tectis, dilute cinnamomeo-brunneis; uredosporis globosis, subglobosis v. rarius ellipsoideis, breviter aculeatis, flavidis, 22-28 × 16-25, episporio crassiusculo, usque 3 µ.

Hab. in foliis Ophiopogonis Jaburan, Linkiu ins. (O. Warburg).

90. **Uredo Ischnosiphonis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1558
1904. — Maculis gregariis, minutis, rotundatis fuscis; soris hypophyllis sparse gregariis, pulvinatis, minutis, flavidis dein fuscidulis; sporis ellipsoideis vel ovoideis, 18–26 × 17-20, hyalino-flavidulis, echinato-aculeatis,

Hab. in foliis Ischnosiphonis leucophæi (Marantaceæ), Rio Juruá, Miry, Amer. merid. — A *Darluca* sæpe infecta et obscurata.

91. **Uredo Eucharidis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1904. 1559
— Maculis gregariis, rotundatis, minutis, fuscis; soris hypophyllis gregarie sparsis, pulvinato-discoideis, roseis, 0,5-1 mm. diam.; sporis subglobosis, ovoideis vel ellipsoideis, intus roseis vel hyalinis, 15-20 × 13-17, episporio hyalino asperato.

Hab. in foliis Eucharidis spec. Cerro de Ponasa in Perù. Amer. merid.

92. **Uredo yurimaguasensis** P. Henn. Fungi Amaz. I, p. 164, Hedw. 1560
1904. — Maculis rotundatis, fuscis exaridis; soris hypophyllis cinnamomeis concentrice dispositis, epidermide fissa velatis; sporis ovoideis vel ellipsoideis interdum subglobosis, brunneo-fuscis, echinatis, 20–34 × 18-24.

Hab. in foliis Smilacis, Yurimaguas, Perù, Amer. merid.

93. **Uredo Dioscoreæ-quinquelobæ** P. Henn. in Hedw. 1903, p. (108). 1561
— Maculis fuscidulis; uredosporis epiphyllis, gregariis, sæpe nervos sequentibus confluentibusque, interdum hypophyllis sparsis, ochraceo-ferrugineis, pulvinatis; uredosporis subglobosis vel ellipsoideis, 13-20 × 13-17, episporio brunneo, minute verrucoso.

Hab. in foliis Dioscoreæ quinquelobæ, Konai-Zaka, Tosa Japoniæ (Yoshinaga).

94. **Uredo Sparganophori** P. Henn. Fungi Amaz. I, p. 160, Hedw. 1562
1904. — Maculis rotundatis, dein effusis flavo-fuscidulis; soris amphigenis gregariis, pulvinatis cæspitosis, fuscidulis, diutius tectis, dein epidermide fissa velatis; uredosporis subglobosis, ovoideis vel ellipsoideis, 20-30 × 18–25, episporio flavo-fuscidulo asperato.

Hab. in foliis Sparganophori Vaillantii, St. Clara, Rio Juruá, Amer. merid.

95. **Uredo juncina** (Thüm.) P. Dumée et R. Maire, in Bull. Soc. bot. 1563
de France 1901, tom. 48, p. 221, *Uromyces juncinus* Thüm. — Sacc. Syll. VII, pag. 569. — Soris subepidermicis, gregariis, ellipticis vel linearibus, postremo epidermidem longitudinaliter disrumpentibus inter costarum sclerenchymatis funiculos, sed non vere liberis, umbrino-ferrugineis; uredosporis globosis, ovoideis vel interdum clavatis, plerumque utrinque rotundatis v. truncatis, umbrinis, episporio subtenui, duobus poris germinationis æquatorialibus praedito, aculeolis hyalinis parce nec non evidenter ornato, 23-35 × 13-22; pedicello deciduo hyalino, arcuato, sursum sæpe dilatato longitudine sporam æquante vel superante.

Hab. in culmis vivis Junci (acutiflori?) Licata Siciliæ

(V. Beltrani) nec non in foliis culmisque vivis Junci maritimi, in paludosis maritimis, prope Golfe de Figari Corsicæ (R. Maire).

96. **Uredo Fuirenæ** Rostr. in Bot. Tidsskrift Copenhagen 1902, vol. 24, p. 205. — Soris hypophyllis, fuscidulis, lanceolatis, usque 1 mm. longis; uredosporis variis, subsphæroideis, obovatis vel oblongo-polyhedricis, subtiliter aculeatis, 20–30 × 14-20. 1564

Hab. in foliis Fuirenæ glomeratæ, Siam Asiæ merid.

97. **Uredo breviculmis** P. Henn. in Hedw. 1901, p. (125). — Soris hypophyllis sparsis v. gregariis, epidermide tectis, minutis, rotundatis v. oblongis, pallide brunneis; uredosporis subglobosis, ovoideis v. ellipsoideis, intus oleoso-aureis, 22-32 × 20-25, episporio crasso, aculeato, hyalino. 1565

Hab. in foliis Caricis breviculmis var. leucochloræ prope Sakawa in prov. Tosa Japoniæ.

98. **Uredo Torulini** P. Henn. Fungi Amaz. IV in Hedw. 1904, p. 57. — Maculis effusis, fuscidulis; soris hypophyllis, sparsis vel gregariis oblongis vel striiformibus, sæpe confluentibus, primo epidermide pallida tectis, dein ferrugineis; sporis subglobosis, ellipsoideis vel ovoideis, fusco-brunneis, verrucosis, 16-22 × 11-18. 1566

Hab. in foliis Torulini (Cyperi) conferti, Bom Fim, Rio Juruá Brasiliæ.

99. **Uredo paspalicola** P. Henn. Fungi Amaz. IV in Hedw. 1904, p. 57. — Maculis oblongis, fuscidulis; soris hypophyllis, sparsis vel gregariis oblongis vel striiformibus, sæpe confluentibus, epidermide flavida tectis; uredosporis ovoideis, clavatis vel ellipsoideis, hyalino brunneolis, aculeato-echinatis 18-28 × 13-18. 1567

Hab. in foliis Paspali conjugati Yurimaguas, Rio Huallaga Brasiliæ.

100. **Uredo hyalina** Diet. in Bot. Jahrb. 1903, p. 632. — Soris minutis hypophyllis, in maculis atropurpureis vel brunneis, diu tectis, paraphysibus clavatis arcuatis, circumdatis; uredosporis subglobosis vel obovatis 33–38 × 30-33, episporio 5–7 μ. crasso, hyalino v. dilute flavescenti, echinulato indutis. 1568

Hab. in foliis Caricis stenanthæ, in prov. Iwaki Japoniæ (Kusano).

101. **Uredo superior** Arthur Bull. Torr. Bot. Cl. 1904, p. 5. — Soris uredosporiferis amphigenis, elongatis, tectis, dein epidermidem lacerantibus; uredosporis globosis 28-34 vel 32-34, episporio 3-4 μ. cr., pallide brunneo, dense echinulato, poris germinationis 2. 1569

Hab. in foliis Fimbristylis spadiceæ, Ponce, Porto Rico, Amer. (A. A. Heller).

102. **Uredo Acriuli** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis sparsis, minutis, rotundatis v. oblongis, epidermide diu tectis, flavo-brunneis; uredosporis subglobosis, ellipsoideis, ovatis v. piriformibus, grosse verrucoso-aculeatis, flavo-brunneolis, 26-40 × 21-28. 1570

Hab. in foliis Acriuli madagascariensis, Andrangoloaka, in insula Madagascar (I. M. Hildebrand).

103. **Uredo Courtoisiæ** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis hypophyllis, maculis minutis 1-2 mm. longis, brunneolis insidentibus, sparsis, minutis, oblongis, pallide brunneis; uredosporis globosis, subglobosis v. ellipsoideis, echinulatis, flavescentibus, 19-24 µ. diam. vel 22-27 × 14-20. 1571

Hab. in foliis Courtoisiæ cyperoidis, Khasia Indiæ orient. (Hooker fil. et Thomson).

104. **Uredo Anthephoræ** Syd. Ann. Mycol. 1903, p. 22. — Soris uredosporiferis amphigenis, præsertim hypophyllis, sparsis, linearibus v oblongis, diu epidermide tectis, pulverulentis, flavo-ferrugineis; uredosporis globosis v. subglobosis, verruculosis, brunneolis 22-30 µ. diam. episporio ca. 4-5.5 µ. cr.; paraphysibus nullis. 1572

Hab. in foliis Anthephoræ elegantis, in insula Cuba (Ramond de la Sagra).

105. **Uredo Olyræ** P. Henn. Fungi Amaz. I, pag. 164, Hedw. 1904. — Maculis ferrugineis, rotundatis vel effusis; soris amphigenis sparsis vel subgregariis, cinnamomeis, epidermide rupta cinctis; sporis ellipsoideis, ovoideis, brunneo-fuscis, verrucosis, 20-30 × 16-24. 1573

Hab. in foliis Olyræ spec., Iquitos, Rio Amazonas, Perú, Amer. merid. — A *Darlucæ* et *Fusarii* speciebus sæpe infecta.

106. **Uredo Panici** Arthur in Bull. of the Torr. Bot. Club. 1902, p. 231. — Fere semper hypophylla; soris oblongis, brunneo-luteolis, cito, epidermide lacerata, erumpentibus; sporis ovalibus vel globosis, 24-28 × 26-37, membrana exili, aurantiaco-luteis, dense echinulatis, poris germin. 4 sparsis. 1574

Hab. in foliis Panici amari, Longboat Key, Fla. et Hog Island Fla. Amer. bor.

107. **Uredo Henningsii** Sacc. et D. Sacc. *Uredo Panici* P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904, nec Arthur (1902). — Maculis effusis fuscidulis vel obsoletis; soris amphigenis gregariis, oblongis interdum striiformibus, cinnamomeis, pulverulentis, epidermide alu- 1575

tacea velatis; sporis subglobosis, ovoideis v. ellipsoideis, læte brunneis, 20-32 × 18-28, minute verrucosis.

Hab. in foliis Panici spec., Rio Juruá, Juruá Miry, Amer. merid. — Ad *Pucciniæ* speciem verisimiliter spectat.

108. **Uredo auletica** Speg. Myc. argent. ser. II, 1902, p. 65. — Maculis 1576
nullis; soris numerosissimis sæpe confluentibus ac vaginas totas obtegentibus, epidermide persistenti sed relaxata velatis, linearibus, ferrugineis; uredosporis majusculis 24-30 × 12-15, sessilibus, episporio tenui subimperspicue papilloso hyalino, eudoplasmate pallide fulvo, obovatis, superne rotundatis deorsum cuneatis basique sæpius truncatis.

Hab. ad vaginas Bromi auletici, Rufino, in Argentina.

109. **Uredo Danthoniæ** Henn. in Hedw. 1902, p. (211). — Soris am- 1577
phigenis, gregariis, striiformibus, ferrugineis; uredosporis subglobosis vel late ellipsoideis, læte brunneis, 17-22 × 14-20, episporio castaneo, minute verrucoso.

Hab. in foliis Danthoniæ Forskalii pr. Planteos House in Stat. Quattah Ægypti.

110. **Uredo paulensis** Henn. in Hedw. 1902, p. 297. — Maculis fu- 1578
scidulis striiformibus; soris amphigenis linearibus, epidermide rupta velatis, ferrugineis; uredosporis ovoideis v. subglobosis, fuscis, 20-28 × 18-22, episporio granulato-verrucoso, fusco; paraphysibus oblonge clavatis, apice incrassatis, rotundatis, 30-50 × 10-20, flavo-brunneis.

Hab. in foliis Calamagrostidis spec., in horto botanico S. Paulo Brasiliæ.

111. **Uredo Rottboelliæ** Diet. in Bot. Jahrb. 1902. pag. 52. — Soris 1579
amphigenis, minutis, ochraceis; uredosporis ellipsoideis vel subglobosis, 30-37 × 25-28, castaneis, echinulatis, poris germ. 4 instructis.

Hab. in foliis Rottboelliæ compressæ var. japonicæ, in horto botanico Tokyo Japoniæ. (Kusano). — Cfr. *Uromyces Rottboelliæ.*

112. **Uredo Setariæ-italicæ** Diet. in Bot. Jahrb. 1903, p. 632. — Soris 1580
amphigenis, minutis, oblongis, cinnamomeis; uredosporis obvatis 27-35 × 20-27, episporio tenui flavo-brunneo echinulato, poris germin. 3 perforato indutis.

Hab. in foliis Setariæ italicæ var. germanicæ et Setariæ viridis in horto botanico Tokyo Japoniæ (Kusano).

113. **Uredo Sorghi-halepensis** Patouill. in Bull. Soc. Myc. de France 1581
1903, fasc. 3, p. 253. — Maculis amphigenis, sparsis vel confluen-

tibus, elongatis, brunneis aut rufulis; soris hypophyllis, linearibus, tectis dein erumpentibus, 250-500 μ. long.; uredosporis subglobosis, ovoideis vel attenuatis, ochraceo-brunneis, 30-35 × 22-25, asperulis, breviter stipitatis; paraphysibus elongatis, 50-60 μ., apice incrassatis, crasse tunicatis, rufescentibus.

Hab. in pag. inf. fol. Sorghi halepensis, Alger Algeriæ. — Ab *Uredine Sorghi* Fuck. differt præsertim paraphysibus.

114. **Uredo Pasadenæ** Syd. Ann. Mycol. 1904, p. 31. — Soris uredosporiferis epiphyllis, maculis nullis vel indeterminatis pallidis et obsoletis insidentibus, sparsis vel hinc inde irregulariter aggregatis, minutis, punctiformibus, diu clausis, tandem poro minuto medio apertis, flavo-aurantiacis; uredosporis globosis, subglobosis, ovatis vel piriformibus, subtiliter echinulatis, subhyalinis, 13–18 μ. diam. vel 13-24 × 11-16. 1582

Hab. in frondibus vivis Gymnogrammes triangularis, Pasadena Californiæ (A. J. Mc Clatchie).

115. **Uredo blechnicola** P. Henn. Fungi Amaz. I, p. 165, Hedw. 1904. — Soris minutis, pulvinatis hypophyllis sparsis nervos sequentibus, flavidis vel fuscidulis, pulverulentis; uredosporis globosis vel lunulatis, flavidulis fuscescentibus vel violascentibus, 20-25 × 18-25, verrucosis. 1583

Hab. in foliis Blechni volubilis, Rio Juruá, Juruá,-Miry, Amer. merid. — Ab *Ured. Blechni* omnino diversa.

116. **Uredo balaensis** Syd. Ann. Mycol. 1903, p. 21. — Soris uredosporiferis amphigenis, plerumque hypophyllis, maculis minutis vix distinctis insidentibus, irregulariter sparsis, minutissimis, epidermide fissa cinctis, pulverulentis, cinnamomeis; uredosporis globosis, subglobosis v. ovatis, aculeatis, brunneis, 22–27 μ. diam. vel 24-30 × 18–24. 1584

Hab. in foliis vivis Blechi Brownei, Balao in prov. Guayas Æquatoriæ (G. Lagerheim).

CÆOMA Link — Syll. VII p. 863, XI p. 227, XIV p. 407, XVI p. 365.

1. **Cæoma exitiosum** Syd. Ann. Mycol. 1903, pag. 252. — Soris per ramulos juniores late expansis, confluentibus et ramulos plerumque valde deformantibus, sæpe etiam folia juniora apicalia obtegentibus, aurantiacis, pulverulentis; cæomosporis subglobosis, ellipsoideis v. oblongis, punctatis, aurantiacis, 16–30 × 12–20; paraphysibus clavatis, hyalinis, apice usque 20 μ. latis. 1585

Hab. in ramulis Rosæ pimpinellifoliæ, in Istria.

2. **Cæoma pulcherrimum** Bubák, Berichte Deut. Bot. Gesell. 1903. p. 273. *C. Mercurialis* Auctor. p. p. — Soris rotundatis, oblongis, confluentibus, caulem per 2-10 cm. ambientibus, pulverulis, aurantiis; cæomosporis vulgo globosis vel ellipsoideis, rarius oblongis (immaturis polygoniis 15-28 × 15-22, membrana tenui, flavida, crebre minuteque verruculosis (sporarum immaturarum 2-2,5 μ. crassa, hyalina), contentu aurantiaco.

Hab. ad caules (qui deformantur et tumescunt) Mercurialis annuæ, in Italia merid., Sicilia, Lusitania, Montenegro. — Pycnidia (*Ecidiolum pulcherrimum*) inter soros sparsa, globulosa, 140-200 μ. diam. mellea, dein brunneola; sporulis globoso-ellipsoideis, 4-5 × 2,5-3.

3. **Cæoma Makinoi** Kusano in Bot. Mag. Tokio 1903. p. 15-22 (japonice et absque diagnosi).

Hab. in foliis Pruni Mumæ, cui valde nocet, in Japonia. — Status spermogonicus in gemmis calycibusque Pruni primitus evolvitur. Cæosporæ amœne flavo-aurantiacæ.

Conspectus alphabeticus

Uredinacearum heteroicarum earumque matricum.

Cl.mi et percomis Doct. H. KLEBAHN permissu, Conspectum hunc ab ejus opere vere eximio *Die wirtswechselnden Rostpilze*, Berlin 1904, ad studiosorum utilitatem excerpsimus, additis paucis speciebus nuperius illustratis. Ut notissimum est, signum I indicat statum æcidialem, II statum uredosporicum, III statum teleutosporicum. Matrices, quoad contagionis effectus, non plene confirmatæ, inter parentheses inscriptæ sunt.

CHRYSOMYXA Unger.

Ledi (Alb. et Schwein.) de Bary: I *Abies excelsa* Lk.; II III *Ledum palustre* L.

Pirolæ (DC.) Rostr.: I [*Abies excelsa* Poir. (*Æcidium conorum-Piceæ* Reess)?]; II III *Pirola rotundifolia* L. etc.

Rhododendri (DC.) de Bary: I *Abies excelsa* Lik.; II III *Rhododendron ferrugineum* L., *hirsutum* L.

Woronini Tranzschel: I [*Picea excelsa* Lk. (*Æcidium coruscans* Fr.)?]; II III *Ledum palustre* L.

Calyptospora v. *Pucciniastrum.*

COLEOSPORIUM Lév.

Cacaliæ (DC.) Wagner: I *Pinus montana* Mill. [*P. silvestris* L.?]; II III *Adenostyles alpina* Bluff. et Fing. (*viridis* Cass.)

Campanulæ-macranthæ Wagner (?): I *Pinus silvestris* L.; II III *Campanula macrantha* Fisch.

Campanulæ-rapunculoidis Kleb.: I [*Pinus silvestris* L.?, *montana* Mill.?]; II III *Campanula rapunculoides* L. [*C. glomerata* L., *glomerata dahurica* hort., *Phyteuma orbiculare* L.].

Campanulæ-rotundifoliæ Kleb.: I [*Pinus silvestris* L.?]; II III *Campanula rotundifolia* L., *pusilla* Haenke, *turbinata* Shott, *Phyteuma spicatum* L., [*Wahlenbergia hederacea* Reichenb., *Phyteuma orbiculare* L. *Campanula bononiensis* L., *glomerata dahurica* hort.).

Campanulæ-Trachelii Kleb.: I *Pinus silvestris* L.; II III *Campanula Trachelium* L., *latifolia* L. var. *macrantha* Fisch., «*nobilis*», [*bononiensis* L., *glomerata* L., *glomerata dahurica* hort., (*rapunculoides* L.?). *Wahlenbergia hederacea* Reichenb.?].

COLEOSPORIUM Lév.

Euphrasiæ (Schum.) Wint: I *Pinus silvestris* L., *montana* Mill.; II III *Alectorolophus major* Reichenb., *minor* Wimm et Grab., *Euphrasia officinalis* L

Inulæ (Lze.) Fisch.: I *Pinus silvestris* L.: II III *Inula Vaillantii* Vill., *Helenium* L., *salicinâ* L.

Melampyri (Rebent.) Kleb.: I *Pinus silvestris* L., *montana* Mill.; II III *Melampyrum pratense* L.

Petasitis de Bary: I *Pinus silvestris* L.; II III *Petasites officinalis* Mœnch.

Phyteumatis Wagner (?): I *Pinus silvestris* L.; II III *Phyteuma spicatum* L.

Pulsatillæ (Strauss) Lév.: I *Pinus silvestris* L.; II III *Pulsatilla vulgaris* Mill., *pratensis* Mill.

Senecionis (Pers.) Fr.: I *Pinus silvestris* L., *austriaca* Höss; II III *Senecio vulgaris* L., *silvaticus* L., *viscosus* L., *vernalis* Waldst. et Kit., [*Jacobaea* Huds.?].

[I *Pinus montana* Mill.?]; II III *Senecio Doronicum* L.

Sonchi (Pers.) Lév.: I *Pinus silvestris* L.; II III *Sonchus asper* All., *arvensis* L., *oleraceus* L.

subalpinum Wagner: I *Pinus montana* Mill.: II III *Senecio subalpinus* Koch.

Tussilaginis (Pers.) Kleb.: I *Pinus silvestris* L.; II III *Tussilago Farfara* L.

CRONARTIUM Fr.

asclepiadeum (Willd.) Fr: I *Pinus silvestris* L.; II III *Vincentoxicum officinale* Mœnch, *Pœonia tenuifolia* L., *officinalis* L., *peregrina* Mill., *Nemesia versicolor* E. Mey., *Verbena teucrioides* Gill. et Hook.

flaccidum v. *asclepiadeum*.

gentianeum Thüm.: I [*Pinus*?]; II III *Gentiana asclepiadea* L.

Nemesiæ v. *asclepiadeum*.

Quercuum (Cooke) Myabe: I *Pinus densiflora* Sieb. et Zucc., *Thunbergi* Parl., *parviflora* Sieb. et Zucc., *liuckuensis* Mayr.; II III *Quercus serratus* Thunb., *variabilis* Blume, *glandulifera* Blume.

ribicola Dietr.: I *Pinus Strobus* L., *Lambertiana* Dougl., *Cembra* L.; II III *Ribes nigrum* L., *aureum* Pursh, *alpinum* L., *americanum* Mill., *aureum* Pursh, *Cynosbati* L., *divaricatum* Dougl., *oxyacanthoides* L., *rotundifolium* Michx., *rubrum* L., *sanguineum* Pursh, *setosum* Lindl., [*Grossularia* L.]

Verbenæ v. *asclepiadeum*

GYMNOSPORANGIUM Hedw.

biseptatum Ellis: I *Amelanchier canadensis* Medic., [*Cratægus tomentosa* L.?]; III *Cupressus thuyoides* L. (= *Chamæcyparis sphæroidea* Spach).

clavariiforme (Jacq.) Reess: I *Cratægus Oxyacantha* L., *monogyna* Jacq., *nigra* Waldst. et Kit., *tomentosa* L., *Douglasii* Lindl., *Pirus communis* L., *Amelanchier vulgaris* Mœnch, [*Cydonia vulgaris* Pers,

Crataegus grandiflora C. Koch, *sanguinea* Pall., *tanacetifolia* Pers., *Sorbus latifolia* Pers., *torminalis* Crantz?, (*aucuparia* L.?)] — *Amelanchier canadensis* Medic.: III *Juniperus communis* L., *communis* var. *hibernica* Gordon. *Oxycedrus* L.

GYMNOSPORANGIUM Hedw.

clavipes Cooke et Pek: I *Amelanchier canadensis* Medic.[*Pirus Malus* L.?, *arbutifolia* L.?]: III *Juniperus virginiana* L., [*communis* L.?].

confusum Plowr.: I *Crataegus Oxyacantha* L., *Mespilus germanica* L., *Cydonia vulgaris* Pers., [*Pirus communis* L.]: III *Juniperus Sabina* L.; *virginiana* L.

Cunninghamianum Barcl.: I *Pirus Pashia* Ham.; III *Cupressus torulosa* Don.

Eliisii Berk.: I [*Pirus Malus* L.?, *Pirus arbutifolia* L.?]; III *Cupressus thuyoides* L. (=*Chamæcyparis sphæroidea* Spach).

globosum Farlow: I *Pirus Malus* L., *Sorbus americana* Marsh., *Crataegus coccinea* L, *Crus-galli* L., [*tomentosa* L.?, *Douglasii* Lindl.?, *Oxyacantha* L.?]; III *Juniperus virginiana* L.

japonicum Sydow: I *Pirus* «*sinensis*»: III *Juniperus sinensis* L.

juniperinum (L) Fr.: I *Sorbus aucuparia* L., *Amelanchier vulgaris* Mœnch; III *Juniperus communis* L.

macropus Lk.: I *Pirus Malus* L, *coronaria* L., [*Pirus arbutifolia* L.?. *Amelanchier canadensis* Medic.?. *Crataegus tomentosa* L.?, *Douglasii* Lindl.?]; III *Juniperus virginiana* L.

Nelsoni Arthur: [I *Amelanchier alnifolia* Nutt.?]: III *Juniperus scopulorum* Sargent.

nidus-avis Thaxter: I *Amelanchier canadensis* Medic., [*Cydonia vulgaris* Pers.? *Pirus Malus* L ?]; III *Juniperus viginiana* L.

Sabinæ (Dicks.) Wint.: I *Pirus communis* L; III *Juniperus Sabina* L., [*virginiana* L.?].

tremelloides R. Hartig: I *Pirus Malus* L., *Sorbus Aria* Crantz, [*Chamæmespilus* Crantz?]; III *Juniperus communis* L.

MELAMPSORA Cast.

Abietis-Caprearum Tub.: I *Abies pectinata* Lam. et DC. (*alba* Mill.); II III *Salix Caprea* M.

æcidioides (DC.) Schrœt. v. *Rostrupii*.

Allii-Fragilis Kleb.: I *Allium ascalonicum* L., *Cepa* L., *sativum* L., *Schœnoprasum* L., *vineale* L., *ursinum* L., [*Porrum* L.], II III *Salix fragilis* L., *pentandra* L., *fragilis* × *pentandra*.

Allii-populina Kleb.: I *Allium ascalonicum* L., *Cepa* L., *Schœnoprasum* L., *sativum* L, *ursinum* L., *vineale* L.; II III *Populus nigra* L., *balsamifera* L., *canadensis* Mœnch.

Allii-Salicis albæ Kleb.: I *Allium Cepa* L., *Schœnoprasum* L., *ursinum* L., *vineale* L., [*Porrum* L.]; II III *Salix alba* L.

alpina Juel: I *Saxifraga oppositifolia* L.: II III *Salix herbacea* L.

MELAMPSORA Cast.

[Amygdalinæ Kleb.]: I II III *Salix amygdalina* L., [*S. pentandra* L.]

Evonymi-Caprearum Kleb.: I *Evonymus europæa* L.: II III *Salix cinerea* L., *aurita* L., *Caprœa* L., [*cinerea* × *viminalis*].

Evonymi-Incanæ Schneid. 1904., I *Evonymus europæa* II III *Salix incana*.

Galanthi-Fragilis Kleb.: I *Galanthus nivalis* L.: II III *Salix fragilis* L., *pentandra* L., *fragilis* × *pentandra*.

Klebahni Bub.: I *Corydalis cava* Schw., *solida* Sm.; II III *Populus tremula* L. (v. *M. Magnusiana*!).

Laricis-Caprearum Kleb.: I *Larix decidua* Mill., *occidentalis* Nutt.; II III *Salix Caprœa* L., [*aurita* L.].

Laricis-Daphnoidis Kleb.: I *Larix decidua* Mill.; II III *Salix acutifolia* Willd., *daphnoides* Vill., [*aurita* L., *cinerea* L., *viminalis* L.?].

Laricis-epitea Kleb: I *Larix decidua* Mill.; II III *Salix aurita* L., *cinerea* L., *viminalis* L., × *hippophaëfolia* Thuill., *Caprœa* L. [*acutifolia* Willd., *daphnoides* Vill., *fragilis* L.?, *purpurea* L.?, *aurita* × *viminalis*, *Caprœa* × *viminalis*, *purpurea* × *viminalis*, × *Smithiana* Willd., × *dasyclados* Wimm.].

Laricis-Nigricantis Schneid. 1904., I *Larix decidua*. II II *Salix nigricans*.

Laricis-Purpureæ Schneid. 1904., I *Larix decidua*. II III *Salix purpurea*.

Laricis-Pentandræ Kleb.: I *Larix decidua* Mill., *sibirica* Ledeb.; II III *Salix pentandra* L., *fragilis* × *pentandra*, [*fragilis* L.].

Laricis-populina Kleb.: I *Larix decidua* Mill.; II III *Populus nigra* L., *balsamifera* L., *canadensis* Mœnch, [*italica* Ludw.].

Laricis Hartig v. *Laricis-Tremulæ*.

Laricis-Tremulæ Kleb.: I *Larix decidua* Mill.; II III *Populus tremula* L., *alba* L., *alba* × *tremula*, [*balsamifera* L.].

Magnusiana Wagner: I *Chelidonium majus* L., *Corydalis solida*; II III *Populus tremula* L., *alba* L., *alba* × *tremula*, [*nigra* L.?].

Orchidis-Repentis (Plowr.): I *Orchis maculata* L., *latifolia* L., II III *Salix repens* L., [*aurita* L.].

pinitorqua Rostr.: I *Pinus silvestris* L., *montana* Mill.; II III *Populus tremula* L., *alba* L., *alba* × *tremula* (*canescens* Sm.).

Ribesii-Auritæ Kleb: I *Ribes alpinum* L., *Grossularia* L., *nigrum* L.: II III *Salix aurita* L., *cinerea* L., [*Caprœa* L.].

Ribesii-Purpureæ Kleb.: I *Ribes alpinum* L., *Grossularia* L., *aureum* Pursh [*sanguineum* Pursh]; II III *Salix purpurea* L., *purpurea* × *viminalis* (=*rubra* Huds.).

Ribesii-Viminalis Kleb.: I *Ribes Grossularia* L., *rubrum* L., *alpinum* L., [*aurem* Pursh, *nigrum* L., *sanguineum* Pursh]: II III *Salix viminalis* L.

Rostrupii Wagner: I *Mercurialis perennis* L.: II III *Populus tremula* L., *alba* L., [*nigra* L., *balsamifera* L., *canadensis* Mœnch, *italica* Ludw.

MELAMPSORELLA Schroet.

Caryophyllacearum (DC.) Schroet.: I *Abies pectinata* Lam. et DC. = *alba* Mill. (*Æcidium elatinum* Alb. et Schw.); II III *Stellaria media* Cyr., *nemorum* L., *Holostea* L., *graminea* L., *uliginosa* Murr., *Arenaria serpyllifolia* L., *Cerastium triviale* Lk., *semidecandrum* L., *Mœhringia trinervia* Clairv., [*Malachium aquaticum* Fr.?].

Symphyti (DC.) Bub.: I *Abies pectinata* Lam. et DC. *alba* Mill.; II III *Symphytum officinale* L.

MELAMPSORIDIUM Kleb.

betulinum (Pers.) Kleb.: I *Larix decidua* Mill.; II III *Betula verrucosa* Ehrh., *pubescens* Ehrh., *nana* L.

OCHROPSORA Diet.

Sorbi (Oud.) Diet: [I *Anemone nemorosa* L.?]; II III *Sorbus aucuparia* L., *torminalis* Crantz.

[*Peridermium Pini* (Willd. Kleb.]: I *Pinus silvestris* L. [II III?].

PUCCINIA Pers.

Actææ-Agropyri E. Fischer: I *Actæa spicata* L.; II III *Agropyrum caninum* Roem. et Schult.

Acidii-Leucanthemi E. Fischer: I *Chrysanthemum Leucanthemum* L.; II III *Carex montana* L.

ad Æcidium-Trientalis Tranzschel.: I *Trientalis europæa* L.; II III *Carex limosa* L.

[*Agropyrina* Erikss.]: [I?]; II III *Agropyrum repens* Beauv. [*Secale cereale* L.?, *Bromus arvensis* L.?].

Agropyri Elk. et Ev. v. *Clematidis-Agropyri*.

Agrostis Plow.: I *Aquilegia vulgaris* L., *alpina* L.; II III *Agrostis alba* L., *vulgaris* Vill.

albiperidis Arth.: I *Ribes Cynosbati* L.: II III *Carex pubescens* Mühl.

Allii-Phalaridis: I *Allium ursinum* L.: II III *Phalaris arundinacea* L.

americana Lagerh.: I *Pentastemon pubescens* Sol. (*P. hirsutus* Willd.); II III *Andropogon scoparius* Michx

amphigena Dietel: I *Smilax herbacea* L., *hispida* Mühl.: II III *Calamovilfa longifolia* Hack.

Andropogonis Schw. v. *americana*.

Angelicæ-Bistortæ (Strauss Kleb.: I *Angelica silvestris* L., *Carum Carvi* L.; II III *Polygonum Bistorta* L., [*P. viviparum* L.].

(Angelicæ-) mamillata Semadeni: [I *Angelica silvestris* L. (*Æcid. Lubakianum* Juel)?]; II III *Polygonum Bistorta* L.

angustata Peck: I *Lycopus americanus* Mühl.: II III *Scirpus atrovirens* Mühl.

arenariicola Plowr.: I *Centaurea nigra* L.: II III *Carex arenaria* L.

argentata (Schultz) Wint.: I *Adoxa Moschatellina* L.: II III *Impatiens nolitangere* L.

PUCCINIA Pérs.

Ari-Phalaridis (Plowr.): I *Arum maculatum* L.: II III *Phalaris arundinacea* L.

Arrhenatheri (Kleb.) Erikss.: I *Berberis vulgaris* L.: II III *Arrhenatherum elatius* Mert. et Koch.

Asteris-Caricis Arthur: I *Aster paniculatus* Lam., *cordifolius* L.: II III *Carex fœnea* Willd.

Atkinsoniana Diet. v. *Bolleyana.*

australis Körn: I *Sedum reflexum* L., *acre* L., *boloniense* Lois.: II III *Diplachne serotina* Lk.

Bartholomaei v. *Bartolomewii.*

Bartolomewii Dietel: I *Asclepias incarnata* L. *syriaca* L.: II III *Bouteloua curtipendula* Torr. (*Atheropogon curtipendulus* Fourn.).

Bistortæ (Strauss) v. *Angelicæ-Bistortæ* et *Conopodii-Bistortæ.*

Bolleyana Sacc.: I *Sambucus canadensis* L.: II III *Carex trichocarpa* Mühl., *lurida* Wahl.

borealis Juel: I *Thalictrum alpinum* L.: II III *Agrostis borealis* Hartm.

bromina Erikss. v. *Symphyti-Bromorum.*

Brunellarum-Moliniæ Cruchet 1904: I *Brunella vulgaris* (Peid. *Brunellæ Wint.*); III *Molinia cærulea.*

Calamagrostis Sydow: I *Ranunculus Lingua* L.: II III *Calamagrostis neglecta* Fr.

Cari-Bistortæ Kleb. v. *Angelicæ-Bistortæ.*

Caricis (Schum.) Rebent.: I *Urtica dioica* L., *urens* L., *gracilis* Ait.: II III *Carex acuta* L., *stricta* Good., *Goodenoughii* Gay, *Carex hirta* L., *riparia* Curt., *acutiformis* Ehrh., *ferruginea* Scop., [*Pseudocyperus* L., *pendula* Huds.].

Caricis-Asteris, Caricis-Erigerontis, Caricis-Solidaginis vide: *Asteris-Caricis, Erigerontis-Caricis, Solidaginis-Caricis.*

Caricis var. himalensis Barcl.: I *Urtica parviflora* Roxb.: II III *Carex setigera* Don.

Caricis-frigidæ E. Fischer: I *Cirsium heterophyllum* All., *spinosissimum* Scop., *Eriophorum* Scop., *rivulare* Lk?: II III *Carex frigida* All.

Caricis-montanæ E. Fischer: I *Centaurea Scabiosa* L., *Cent. montana* L., [*C. Iacea* L., *nigra* L., *amara* L., *axillaris* Willd., *melitensis* L., *nigrescens* Willd.]: II III *Carex montana* L., [*alba* Scop., *leporina* L.?].

(Clematidis-) Agropyri Ell. et Everh.: I *Clematis Vitalba* L.: II III *Agropyrum glaucum* Roem. et Schult.

Conopodii-Bistortæ Kleb.: I *Conopodium denudatum* Koch: II III *Polygonum Bistorta* L.

Convallariæ-Digraphidis (Sopp.) Kleb.: I *Convallaria majalis* L.: II III *Phalaris arundinacea* L.

coronata Corda: I *Frangula Alnus* Mill.: II III *Calamagrostis lanceolata*

PUCCINIA Pers.

Roth, *arundinacea* Roth, *Phalaris arundinacea* L., *Holcus mollis* L., *lanatus* L., *Agrostis vulgaris* With., *stolonifera* L., *Agropyrum repens* Beauv., *Dactylis glomerata* L., *Festuca silvatica* Vill.

[*coronata* f. *Epigæi* Erikss.]: [I?]; II III *Calamagrostis Epigeios* Roth

[*coronata* f. *Melicæ* Erikss.]: [I?]; II III *Melica nutans* L.

coronata var. himalensis Barclay: I *Rhamnus dahurica* Pall.; II III *Brachypodium silvaticum* Beauv., *Piptatherum holciforme* Rœm. et Schult., *Festuca gigantea* Vill.

coronifera Kleb.: I *Rhamnus cathartica* L., [*oleoides* L., *tinctoria* W. K.?, *utilis* Decne. (*dahurica* Pall.)?, *infectoria* L., *lanceolata* Pursh?]; II III *Avena sativa* L., *Lolium perenne* L., *Festuca elatior* L., *Holcus mollis* L., *lanatus* L., *Alopecurus pratensis* L., *nigricans* Horn.?, *Glyceria aquatica* Wahlenb.?, *Arrhenatherum elatius* M. et K. (stirpes).

Digraphidis v. *Convallariæ-Digraphidis.*

Dioicæ Magnus: I *Cirsium oleraceum* Scop., *palustre* Scop., *heterophyllum* All., *spinosissimum* Scop.,? *rivulare* Lk.; II III *Carex dioica* L., *Davalliana* Sm. [*alba* Scop.].

dispersa Erikss.: I *Anchusa arvensis* Marsch. v. Bieb., *officinalis* L. [*Nonnea rosea* F. M.?]; II III *Secale cereale* L., *montanum* Guss.

Elymi v. *Thalictri-Elymi* et *Impatientis-Elymi.*

Elymi-Impatientis v. *Impatientis-Elymi.*

Erigerontis-Caricis Arthur: I *Erigeron annuus* Pers., *philadelphicus* L., *canadensis* L. (*Leptilon canadense* Britt.); II III *Carex festucacea* Wille.

Eriophori Thüm.: [I *Cineraria palustris* L.?]; II III *Eriophorum angustifolium* Roth.

extensicola Plowr.: I *Aster Tripolium* L.; II III *Carex extensa* Good..

Festucæ Plowr.: I *Lonicera Periclymenum* L.; II III *Festuca ovina* L., *duriuscula* L. — I *Lonicera nigra* L.; II III *Festuca rubra* L. var. *fallax* Hack.

firma Dietel: I *Bellidiastrum Michelii* Cass; II III *Carex firma* Host.

fraxinata Lk. v. *peridermiospora.*

glumarum (Schmidt) Erikss. et Henn.]: [I?]; II III *Triticum vulgare* Vill., *Hordeum vulgare*, *Secale cereale* L., *Elymus arenarius* L., *Agropyrum repens* Beauv.

graminis Pers. I *Berberis* et *Mahonia* spp. *Æcidium Berberidis Gm.* II III *Triticum*, *Secale*, *Avena*, *Agrostis*, *Aira*, *Poa* etc.

holcina Erikss.: [I?]; II II *Holcus lanatus* L., *mollis* L.

Jamesiana v. *Pucc. Bartholomewii.*

Jasmini-Chrysopogonis Barcl.: *Jasminum humile* L.; II III *Chrysopogon Gryllus* L.

PUCCINIA Pers.

Impatientis-Elymi Arth.: I *Impatiens aurea* Mühl. · II III *Elymus virginicus* L.

Ligericæ Sydow: I *Senecio silvaticus* L. II III *Carex ligerica* Gay

Limosæ Magnus: I *Lysimachia vulgaris* L. *fagnifera* · II III *Carex limosa* L.

linearis Roberge **v.** ***Alli-Phalaridis.***

Lolii Nielsen **v.** ***coronifera.***

longissima Schroet.: I *Sedum acre* L., *boloniense* Loisl.: II III *Koeleria gracilis* Pers.

Magnusiana Körn.: I *Ranunculus repens* L. *bulbosus* L. · II III *Phragmites communis* Trin.

Magnusii Kleb.: I *Ribes nigrum* L., *alpinum* L. *aureum* Pursh *sanguineum* Pursh: II III *Carex riparia* Curt., *acutiformis* Ehrh.

mamillata **v.** ***Angelicæ-mamillata*** **u.** ***Mei-mamillata.***

Maydis Bereng. I *Oxalis cymosa* (*Æcidium Oxalidis* Thüm.) · II III *Zea Mays* L. (Arthur 1904).

Mei-mamillata Semadeni: I *Meum Mutellina* Gaert. (*Ligusticum Mutellina* Crantz); II III *Polygonum Bistorta* L.

Moliniæ Tul.: I *Orchis latifolia* L., *maculata* L.: II III *Molinia coerulea* Moench

nemoralis Juel: I *Melampyrum pratense* L.: II III *Molinia coerulea* Moench

obscura Schroet.: I *Bellis perennis* L.: II III *Luzula campestris* DC.

obtusata Otth: I *Ligustrum vulgare* L.: II III *Phragmites communis* Trin.

Opizii Bubák: I *Lactuca muralis* Less., *Scariola* L.: II III *Carex muricata* L.

Orchidearum-Phalaridis Kleb.: I *Orchis maculata* L. *latifolia* L. *Morio* L., *Platanthera bifolia* Reichenb., *chlorantha* Cust., *Listera ovata* R. Br.; II III *Phalaris arundinacea* L.

paludosa Plowr.: I *Pedicularis palustris* L.; II III *Carex Goodenoughii* Gay.

Paridis-Digraphidis (Plowr.): I *Paris quadrifolia* L.: II III *Phalaris arundinacea* L.

Pekii (de Toni Kellerm.: I *Exothera biennis* L.: II III *Carex trichocarpa* Mühl., *stipata* Mühl.

peridermiospora (Ellis et Tracy) Arth.: I *Prunus virginiana* Mill., *canadensis* L., *serotina* Ehrh.: II III *Spartina pectinata* Link

perplexans Plowr.: I *Ranunculus acer* L.: II III *Anthoxanthum odoratum*

persistens Plowr.: I *Thalictrum flavum* L. II III *Agropyrum repens* Beauv. — I *Thalictrum aquilegifolium* L., *minus* L., *foetidum* L.: II III *Poa nemoralis* L. *var. firmula* Gaud.

Phalaridis **v.** ***Ari-Phalaridis.***

Phlei-pratensis Erikss. et Henn.: [I?]: II III *Phleum pratense* L., *Festuca*

stuca elatior L., [*Phleum Michelii* All., *Avena sativa* L., *Secale cereale* L.].

PUCCINIA Pers.

Phragmitis (Schum.) Körn.: I *Rumex conglomeratus* Murr., *obtusifolius* L., *crispus* L., *hybridus* Murr., *Hydrolapathum* Huds., *Rheum officinale* Baill.; II III *Phragmites communis* Trin.

Poarum Nielsen: I *Tussilago Farfara* L.; II III *Poa annua* L., *fertilis* Host., *nemoralis* L., *pratensis* L., *trivialis* L., [*Secale cereale* L.?].

Polliniæ Barcl.: I *Strobilanthes Dalhousianus* Clarke; II III *Pollinia nuda* Trin.

Polygoni-amphibii Pers.: I *Geranium silvaticum* L., [*Geranium palustre* L.?, *pratense* L.?]; II III *Polygonum amphibium* L.

Polygoni-vivipari Karsten: I *Angelica silvestris*; II III *Polygonum viviparum* L., [*Bistorta* L.].

Pringsheimiana Kleb.: I *Ribes Grossularia* L., *alpinum* L., *aureum* Pursh, [*rubrum* L., *sanguineum* Pursh, (*nigrum* L.)]; II III *Carex acuta* L., *stricta* Good., *Goodenoughii* Gay, *cæspitosa* L.

Ribesii-Caricis v. *P. Pringsheimiana, Ribis-nigri-Acutæ, Ribesii-Pseudocyperi, Magnusii, Ribis-nigri-Paniculatæ.*

Ribesii-Pseudocyperi Kleb.: I *Ribes nigrum* L., *Grossularia* L., *alpinum* L., *aureum* Pursh, *sanguineum* Pursh; II III *Carex Pseudocyperus* L.

Ribis-nigri-Acutæ Kleb.: I *Ribes nigrum* L., *alpinum* L., [*aureum* Pursh, *sanguineum* Pursh, (*Grossularia* L.)]; II III *Carex acuta* L., *stricta* Good.

Ribis-nigri-Paniculatæ Kleb.: I *Ribes nigrum* L., *alpinum* L., (*aureum* Pursh, *sanguineum* Pursh, *rubrum* L., (*Grossularia* L.)]; II III *Carex paniculata* L., *paradoxa* Willd.

rupestris Juel I: *Saussurea alpina* DC.; II III *Carex rupestris* L.

(Salviæ-)Stipæ: *Salvia silvestris* L., *pratensis* L., [*Thymus Serpyllum* L.?], II III *Stipa capillata* L,

Sambuci (Schw.) Arth. v. *Bolleyana.*

Schmidtiana Dietel: I *Leucojum vernum* L., *æstivum* L.; II III *Phalaris arundinacea* L.

Schœleriana Plowr. et Magn.: I *Senecio Jacobœa* L.; II III *Carex arenaria* L.

Schræteriana Kleb. v. *Serratulæ-Caricis.*

Scirpi DC.: I *Limnanthemum nymphæoides* Lk.; II III *Scirpus lacuster* L.

septentrionalis Juel: I *Thalictrum alpinum* L.; II III *Polygonum viviparum* L. *Bistorta* L.

Serratulæ-Caricis Kleb.: I *Serratula tinctoria* L.; II III *Carex flava* L.

Sesleriæ Reichardt: I *Rhamnus saxatilis* Jacq.; II III *Sesleria cærulea* Ard.

sessilis Schneid. v. *Allii-Phalaridis.*

PUCCINIA Pers.

silvatica Schrœt.: I *Taraxacum officinale* Web., *Senecio Fuchsii* Gmel., *nemorensis* L., *Lappa officinalis* All., *Crepis biennis* L.; II III *Carex brizoides* L., *præcox* Schreb. (*Schreberi* Schrank.), *arenaria* L., *silvatica* Huds? *pallescens* L.

similima Arthur: I *Anemone canadensis* L.: II III *Phragmites communis* Trin.

[**simplex** (Körn.) Erikss. et Henn.]: [I?]: II III *Hordeum vulgare* L., *distichum* L., *hexastichum* L., *Zeocriton* L. u. a.

Similacearum-Digraphidis Kleb.: I *Polygonatum multiflorum* All., *officinale* All., *verticillatum* All., *Convallaria majalis* L., *Majanthemum bifolium* Schmidt, *Paris quadrifolia* L.: II III *Phalaris arundinacea* L.

Solidaginis-Caricis Arth.: I *Solidago canadensis* L., *serotina* Ait., [*cæsia* L., *ulmifolia* Mühl., *rigida* L.]: *Carex Jamesii* Schw., *stipata* Mühl. *Stipæ* (Opiz) Hora v. (*Tymi-*) *Stipæ* et (*Salviæ-*) *Stipæ*.

Symphyti-Bromorum F. Müller: I *Symphytum officinale* L., *Pulmonaria montana* Lej., [*Anchusa officinalis* L.?, *Nonnea rosea* F. M.?]: II III *Bromus arvensis* L., *brachystachys* Horn., *erectus* Huds. *inermis* Leyss., *mollis* L., *secalinus* L., [*Arrhenatherum elatius* Mert. et Koch?]. *Sydowiana* Dietel v. *Vilfæ*.

subnitens Dietel: I *Chenopodium album* L.; II III *Distichlis spicata* Greene.

tenuistipes Rostr.: I *Centaurea lucea* L.; II III *Carex muricata* L.

(Thalictri-)Elymi Westend.: I *Thalictrum minus* L.; II III *Elymus arenarius* L.

(Thymi-)Stipæ (Opiz): I *Thymus pannonicus* Willd., *ovatus* Mill., *præcox* Opiz. *angustifolius* Pers.; II III *Stipa capillata* L.

Trailii Plowr.: I *Rumex Acetosa* L.; II III *Phragmites communis* Trin. *triarticulata* Berk et Curt. v. (*Thalictri*)-*Elymi*.

[**Triseti** Erikss.]: [I?]: II III *Trisetum flavescens* Beauv.

[**triticina** Erikss.]: [I?]; II III *Triticum vulgare* Vill., [*Secale cereale* L.?].

uliginosa Juel: I *Parnassia palustris* L.; II III *Carex Goodenoughii* Gay

Vaginatæ Juel: I *Saussurea alpina* DC.: II III *Carex vaginata* Tausch. *verbenicola* Arth. v. *Vilfæ*.

Vilfæ Arth. et Holw. I *Verbena stricta* Vent., *urticifolia* L.; II III *Sporobolus longifolius* Wood.

Vulpinæ Schrœt.: I *Tanacetum vulgare* L., *Achillea Ptarmica* L.?; II III *Carex vulpina* L.

Windsoriæ Schw.: I *Ptelea trifoliata* L.; II III *Sieglingia seslerioides* Scrib. (*Triodia cuprea* Jacq., *Tricuspis seslerioides* Torr.).

Winteriana Magnus v. *Allii-Phalaridis*.

PUCCINIASTRUM Otth.

Abietis Chamænerii Kleb.: I *Abies pectinata* Lam. et DC. (*alba* Mill.); II

III *Epilobium angustifolium* L. (*Chamænerion angustifolium* Schur.), *Dodonæi* Will.

PUCCINIASTRUM Otth.

[Epilobii (Pers.) Otth]: [I?]; II III *Epilobium roseum* Retz., *hirsutum* L.

Gœppertianum (J. Kühn): I *Abies pectinata* Lam. et DC. *alba* Mill.; I II III *Vaccinium Vitis Idæa* L.

Padi (Kunze et Schm.) Diet.: I *Abies excelsa* Poir. (*Æcidium strobilinum* (Alb. et Schw.) Reess; II III *Prumus Padus* L., *virginiana* L.

Rostrupia Lagerh. v. *Puccinia (Thalictri)-Elymi.*

Thecopsora Magn. v. *Pucciniastrum.*

UROMYCES Lk.

ad *Æcidium carotinum* Bub.: I *Daucus Carota* L., [II III *Scirpus maritimus* L.?].

Aristidæ Ell. et Ev.: I *Plantago Rugelii* Dec.; II III *Aristida oligantha* Michx.

Berulæ-Scirpi Kleb.: I *Berula angustifolia* Koch; II III *Scirpus maritimus* L.

Dactylidis Otth: I *Ranunculus bulbosus* L., *repens* L., [*acer* L.?, *polyanthemos* L.?]; II III *Dactylis glomerata* L.

Euphorbiæ-Astragali Jordi (1904): I *Euphorbia Cyparissias*, I II *Astragalus Glycyphyllos, Oxytropis montana, campestris, glabra, lapponica* *).

Euphorbiæ-Corniculati Jordi (1904): I *Euphorbia Cyparissias*, II III *Lotus corniculatus.*

Graminis (Niessl): Bub. 1904: I *Seseli glaucum* L. (*Æcidium Seselis* Niessl) III *Arrhenatherum, Poa?*

Junci (Desm.) Tul.: I *Pulicaria dysenterica* Gærtn. (*Inula disenterica* L.); II III *Juncus obtusiflorus* Ehrh.

lineolatus v. *Scirpi, Berulæ-Scirpi, Pastinacæ-Scirpi, Maritimæ* ad *Æcidium carotinum.*

Maritimæ Plowr.: I *Glaux maritima* L.; II III *Scirpus maritimus* L.

Pastinacæ-Scirpi Kleb.: I *Pastinaca sativa* L., [*Berula angustifolia* Koch]; II III *Scirpus maritimus* L.

Pisi (Pers.) De Bary: I *Euphorbia Cyparissias* L., *Esula* L.; II III *Pisum sativum* L., *arvense* L., *Lathyrus pratensis* L., *Vicia Cracca* L.

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*) *Uromyces Astragali* (Opiz) Jordi (1904), cujus st. æcidialis nondum est notus, tantum in Astragalo exscapo viget. Cfr. Syll. VII, pag. 550 (species collecticia).

UROMYCES Lk.

Poæ Rabenh.: I *Ranunculus auricomus* L. *Ficaria* L., *repens* L., *bulbosus* L.; II III *Poa annua* L., *nemoralis* L., *trivialis* L., *pratensis* L. (stirpes?).

Scirpi (Cast.) Lagerh.: I *Hippuris vulgaris* L.; II III *Scirpus maritimus* L. — I *Sium latifolium* L.; II III *Scirpus maritimus* L.

striatus Schrœter: I *Euphorbia Cyparissias* L.; II III *Trifolium agrarium* L.

USTILAGINACEÆ Tul.

Syll. VII p. 451, IX p. 282, XI p. 230, XIV p. 410, XVI p. 367 *)

USTILAGO Pers. — Syll. VII p. 451, IX p. 282, XI p. 230, XIV p. 410, XVI p. 367.

1. **Ustilago Scolymi** Roum. Exsicc. n. 5129 (nomen), Juel in Bull. de la Soc. Myc. de France, Tome XVII, 4° fasc. 1901, p. 257, cum ic. — Pulvere brunneo-nigra flores et receptacula ex toto destruente et involucra obducente; sporis pallidis globulosis, 14-16 μ. diam. vel ellipticis 14 × 19, reticulatis. 1587

   Hab. in floribus Scolymi grandiflori, Constantine Afr. bor.

2. **Ustilago violacea** (Pers.) Fuck. — Syll. VII, p. 474. — var. **major** Clinton in Journ. of Mycol. 1902, p. 139. — Soris inconspicuis in antheris inflatis nidulantibus, in pulverem violaceam solventibus; sporis pallide lilacino-violaceis, ovoideo-globosis, raro irregularibus, episporio paullo incrassato minuteque reticulato, 1 μ. vel ultra crasso 7–12 μ. longis. 1588

   Hab. in antheris Silenes Watsonii, Washington Amer. bor. 1589

3. **Ustilago Androsaces** Karst. Fungi nov. Lœnnb. 1904, p. 7 (Finska Vetensk. Soc.) — Soris fuscis pulverulentis; sporis sphæroideis, levibus, 35-50 μ. diam.

   Hab. in ovariis Androsaces (filiformis?) prope Baical Sibiriæ, Augusto 1902 (O A. F. Lönnbohm).

4. **Ustilago Calandriniæ** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 378. — Soris floricolis, involucris floralibus inclusis, 3-4 mm. diam., massam purpureo-atram formantibus; sporis atro-purpureis, ovoideis v. sphæroideis, 13,5-17 μ. long., æqualiter et minute reticulatis areolis 1,5-2 μ. latis, 1-2 μ. alt. 1590

   Hab. in floribus Calandriniæ Brewerii et C Menziesii in California Amer. bor.

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*) Conferenda absoluta monographia « North American Ustilaginaceæ », a cl. G. P. Clinton elaborata et in « Proceedings of the Boston Soc. of Natur History » 1904, vol. 31, p. 329-529 inserta.

5. **Ustilago Triplasidis** Ell. et Ev. in Clinton. North Amer. Ustil. Proceed. Boston Soc. 1904, p. 355. — Soris ovaria occupantibus ellipsoideis 3-4 mm. long, membrana obductis, inter glumas nidulantibus; sporis læte rufo-brunneis, vulgo uno latere dilutioribus, ovoideo-sphæroideis 5-9 μ. long. plerumque copiose minutissime echinulatis. 1591

Hab. in ovariis Triplasidis americanæ, Mississipi Americæ bor.

6. **Ustilago Piperii** Clint. North Amer. Ustil in Proceed. Boston Soc. 1904, p. 382. — Soris hypophyllis, pustulas formantibus, plus minus confluentibus, sæpe marginalibus, tectis, dein erumpentibus et massam atro-purpuream ostendentibus; sporis rufo-purpureis ovoideis vel sphæroideis, rarius irregularibus, minute et plerumque oblique striatis, 7-10 μ. diam. vel usque 12 μ. long. 1592

Hab. in foliis Polygoni Davitiæ, in California et Polygoni phytolaccæfolii, Idaho Amer. bor. (C. V. Piper). — *Ustil. Kœnigiæ* et *Ust. Bistortarum* affinis.

7. **Ustilago Rumicis** (Beck.) Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, p. 380, *Ustilago utriculosa* Tul. var. *Rumicis* Berk. Grevill. 1874, III, p. 39. — Soris floricolis, axes florum obducentibus et massas sordide purpureas formantibus; sporis ovoideo-sphæroideis plerumque 11-16 μ. long., atro-purpureis; episporio reticulato, areolis 1 μ. alt. et 1-3 μ. diam. 1593

Hab. in floribus Rumicis Acetosellæ in Carolina infer. et Rum. hastatuli, in Alabama, Amer. bor. — *U. Kühneanæ* affinis.

8. **Ustilago Bistortarum** (D C) Körn. — Syll. VII, p. 469. — var. **inflorescentiæ** Trelease, Harrim. Alaska Exped. Crypt. p. 35. — Sporis copiosissimis, brunneo-purpureis, subglobosis v. subelongatis, 9-14, plerumque 11-13 μ. diam., sæpius perfecte levibus. 1594

Hab. in inflorescentia Polygoni vivipari, Kadiak, Yakutat, Unalaska (Trelease). — Sporis levibus et situ in inflorescentia a typo dignoscitur.

9. **Ustilago utriculosa** (Nees) Tul. — Syll. VII, p. 476. — var. **microspora** Speg. Myc. argent. ser. II, 1902, p. 58. 1595

Hab. ad flores Polygoni acris, in uliginosis prope Cordoba Argentinæ. — Varietas a typo sporis conspicue minoribus (6-8 μ. diam.) angustius areolatis, membrana 1 μ. alt., recedens.

10. **Ustilago tuberculiformis** Syd. Ann. Mycol. 1903, p. 22. — Soris hypophyllis, maculis fuscis purpureo marginatis insidentibus, tu- 1596

berculiformibus 1-3 mm. diam., rotundatis v. subrotundatis, membrana tenui diutius tectis, dein liberis, pulverulentis, flavo-brunneis; sporis globosis v. subglobosis, rarius ellipsoideis, dilute flavidis, distincte areolato-verrucosis, 10-13 × 9-11.

Hab. in foliis Polygoni runcinati, prov. Huphe Sinarum (A. Henry).

11. **Ustilago Tillandsiæ** Patters. apud Clinton in Journ. of Mycol. 1902, p. 135. — Soris perianthium florum destruentibus, pulverulentis, nigris, 1-3 cm. longis; sporis olivaceo-brunneis ovoideis vel sphæricis, plus minusve collapsis, levibus vel episporio minutissime asperulo donatis, 7-13 μ. diam. 1597

Hab. in inflorescentia Tillandsiæ Leiboldianæ in Mexico et in Tillandsiæ spec. in Costa-Rica Amer. centr.

12. **Ustilago Dracænæ** S. da Cam. in J. Veriss. De Almeida, Contrib. à la Mycoflora de Portugal, 1903, p. 22. — Soris fuligineo-nigricantibus, effusis; sporis fuligineis, globosis vel subglobosis, episporio crassiusculo echinulatoque, initio in glomerulos laxe connexis, mox liberis, 6-8 × 6. 1598

Hab. in foliis Dracænæ Draconis, pr. Barreiro Lusitaniæ (O. Vecchi).

13. **Ustilago Dichromenæ** P. Henn. in Hedw. 1904, pag. 78. — Soris inclusis, flores destruentibus, atris; sporis subglobosis, angulatis, fusco-brunneis, 8-15 μ. diam., episporio minute granuloso. 1599

Hab. in floribus Dichromenæ minarum, Rio de Janeiro Brasiliæ (E. Ule).

14. **Ustilago Nakanishikii** P. Henn. Pilze Japan. II, p. 150, (Hedw. 1904). — Soris olivaceo-atris, pulverulentis in floribus, eos omnino destruentibus; sporis subglobosis vel ellipsoideo-angulatis, 4-8 × 4-5 μ., episporio fusco-olivaceo vel flavo-fusco levi, filis hyalino-fuscidulis, ca. 4 μ. crassis intermixtis. 1600

Hab. in inflorescentia Caricis brunneæ, Tosa, Uchinotani Japoniæ (K. Nakanishiki). — *Ust. olivaceæ* affinis.

15. **Ustilago Diplasiæ** P. Henn , Fungi Amaz. I, p. 155 (Hedw. 1904). — Soris aterrimis, flores omnino destruentibus, inflorescentias crasse deformantibus, inclusis, dein subcrustaceo-pulverulentis; sporis oblongo-ovoideo vel subgloboso-polyhedricis, aterrimis, 20-40 × 15-30, episporio obtuse verrucoso. 1601

Hab. in inflorescentiis Diplasiæ karatifoliæ, Rio Negro, Sao Jaquim Amazoniæ Amer. mer. — Sororum fabrica sporisque magnis et grosse verrucosis distincta species.

16. **Ustilago exigua** Syd. Ann. Mycol. 1903, p. 177, *Ustil. microspora* Massee et Rodway in Kew Bull. 1901, p. 160, nec Schrœt. et Henn. — Soris, paniculas totas implectentibus easque in massam pulveraceam transformantibus, obscure fulvis; sporis globosis 3-3,5 μ. diam. vel subglobosis 3-4 × 2-2,5, glabris, dilute olivaceis. 1602

Hab. in inflorescentia Danthoniæ penicillatæ in Tasmania (Rodway).

17. **Ustilago residua** Clinton in Journ. of Mycol. 1902, p. 133. — Soris prominentibus, ovaria destruentibus interdumque vaginas foliorum occupantibus, erumpentibus in massam olivaceo-nigram; sporis olivaceo-brunneis, ovoideis vel ovato-globosis vel irregularibus, episporio tenui donatis, reticulatis verisimiliter e granulis contentis, 5,5-8,5 μ. diam., interdum usque 11 μ. longis. 1603

Hab. in inflorescentia Danthoniæ compressæ N. Y., Dant. spicatæ N. Hamps., Danthoniæ spec., Colorado Amer. bor.

18. **Ustilago Tricuspidis** Ell. et Gall. apud Clinton in Journ. of Mycol. 1902, p. 135. — Soris ovaria destruentibus, ellipsoideis, circ. 4 mm. longis; sporis rufo-brunneis, subsphæricis v. globosis, raro ovoideis, subverruculoso-echinulatis, 8-11 μ. longis. 1604

Hab. in ovariis Triodiæ cupreæ (Tricuspis seslerioides) Montana Amer. bor.

19. **Ustilago heterogena** P. Henn. Fungi Amaz. I, pag. 155 (Hedw. 1904). — Soris versiformibus, culmos inflorescentiasque implentibus et deformantibus, atris, in culmis foliisque pustuliformibus vel pulvinatis oblongis usque ad 12 cm. longis, ca. 2 cm. crassis, epidermide alutacea vel ferruginea vestitis, in floribus ca. 1-2 mm. diam.; sporis . . . . (diagnosis incompleta). 1605

Hab. in culmis, inflorescentia et floribus Leptochloæ virgatæ, Rio Juruá, Bom Fim Amazoniæ — Habitu *Ustilaginis Maydis* fere æmula.

20. **Ustilago digitariicola** Speg. Mycet. argent. ser. II, 1902, p. 57. — Gemmas foliares infectas, vaginis foliorum adultorum arcte vestitas, in massam pulveraceam nigram fibris longitudinalibus percursas, omnino transformans; sporis ab initio liberis globosis v. e mutua pressione leniter obtuseque angulosis, subopacis, atro-fuligineis, intus dense granulosis, 8-12 μ. diam., tenuiter tunicatis. 1606

Hab. in Panico (Digitaria) sanguinali, La Plata Argentinæ. — Species difficillime in vivo perspicienda, post mortem plantæ hospitantis facilius inveniенda.

21. **Ustilago diplospora** E. et E. Journ. Myc. 1890 p. 119. — Massa 1607

sporarum atro-brunnea; sporis dimorphis, minoribus globosis, rugosis, brunneis, 7-8 μ. diam., majoribus 12-15 μ. diam. globosis, levibus, pallidioribus, fere hyalinis.

Hab. in ovariis Panici sanguinalis, Holly Springs Miss. Am. bor. (Tracy).

22. **Ustilago stipicola** Speg. Myc. Argent. ser. II, 1902, p. 59. — 1608
Soris, paniculas infectantibus ac illas in pulverem atram totam transformantibus, pulverulentis; sporis subglobosis levibus ab initio liberis, tenuiter tunicatis 4-5 μ. diam., ferrugineis.

Hab. in paniculis nondum evolutis Stipæ setigeræ et St. filiculmis in Argentina.

23. **Ustilago nummularia** Speg. Mycet. argent. ser. II, 1902, p. 59. 1609
— Partes infectæ subimmutatæ, vaginis parum ampliatis involutæ; soris compactiusculis, aterrimis, epidermidem parum tumefactam incolentibus; sporis e fronte visis orbicularibus 4-5 μ. diam., latere breviter linearibus 1,5-2 μ. cr., levibus, obscure atro-olivaceis.

Hab. in culmis et inflorescentiis nondum evolutis Stipæ? cujsdam La Plata Argentinæ.

24. **Ustilago calcarea** Griffiths in Bull. of the Torr. Bot. Club, 1904. 1610
p. 85, fig. 8. — Pustulis nullis; soris orbicularibus 5 mm. diam. vel elongato-confluentibus, erumpentibus, culmicolis foliicolisque; sporis fuligineis, coacervatis nigris, irregularibus, globosis v. ovatis, sæpe acuminatis, 7-10 μ. diam., guttula magna præditis, episporio minuto, levi donatis.

Hab. in culmis foliisque Bouletouæ brevisetæ in solo gypso-calcareo pr. Roswell, in Amer. bor.

25. **Ustilago elegans** Griffiths in Bull. of the Torr. Bot. Club, 1902, 1611
p. 292, fig. 3. — Soris immersis, maturitate folium totum occupantibus; sporis subglobosis, subangulosis vel suboblongis, 10-13 μ. diam.; episporio circ. 1 μ. crasso, minute echinulato.

Hab. in foliis Chloridis elegantis, Cochize, Arizona Amer. borealis.

26. **Ustilago Eriocauli** (Mass.) Clinton, in Journ. of Mycol. 1902, p. 137. Huc ducenda *Cintractia Eriocauli* Massee — Syll. XI, p. 233: cfr. *Ust. Eriocauli* Clint. in Rhodora 1901, III, p. 82.

Hab. in ovariis subimmutatis Eriocauli septangularis, South Billerica Mass. Amer. bor. — Sori nigri, ovoidei, distincte bilobi, 0,7-1 mm., firmi non facile rupti; sporæ in massam atro-olivaceam dense compactæ, irregulariter polygoniæ vel sub-

globosæ, subinde suboblongæ, prominulo-verruculosæ, 9-15 μ. diam.

27. **Ustilago Festucæ-tenellæ** Henn. in Hedw. 1902, p. 161). — Soris in rachidibus floribusque eos paulo deformantibus contortosque reddentibus, olivaceo-atris, pulverulentis; sporis subgloboso-angulatis, intus granuloso-punctoideis, 13-15 μ., episporio atro, levi. 1612

Hab. in paniculis Festucæ tenellæ, Mexico (Holway).

28. **Ustilago filiformis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 254, — Sacc. Syll. XVI, p. 1122 (nomen). — Soris ovaria destruentibus, tubiformibus, flexuosis, usque ad 4 cm. longis, epidermide tenui papyracea, pallescente tectis; sporis subgloboso- v. ellipsoideo-angulatis, primo hyalinis dein brunneis vel atris, ca. 10-12 μ. diam., episporio tenui, levi vel punctulato. 1613

Hab. in foliis Andropogonis contorti, Usafua Afr. orient.

29. **Ustilago halophila** Speg. Mycet. argent. ser. II, 1902, p. 58. — Plantæ infectæ fere immutatæ; vaginis infirmis sæpius terra absconditis in parte basali v. parum supra fuscescentibus transverse rugosis incrassatulis, primo integris dein irregulariter disruptis ac sporas liberantibus; sporis ellipticis v. subglobosis, primo 12-20-conglomeratis, serius omnibus liberis 6-8 × 5-6, tenuiter tunicatis, olivaceo-fuligineis. 1614

Hab. ad folia radicalia Distichlidis scopariæ, prope Rufino Argentinæ.

30. **Ustilago Kusanoana** P. Henn. in Hedw. 1904, p. 140. — Soris in spicis globosis ca. 1,5-2 mm. diam., cuticula firma, vividula inclusis; sporis rotundato- vel oblongo-angulatis flavo-fuscidulis, dense verrucosis, 6-9 × 5-7. 1615

Hab. in floribus Eragrostidis ferrugineæ, Tokyo Japoniæ (Kusano).

31. **Ustilago lycuroides** Griffiths im Bull. of. the Torr. Bot. Club 1904, p. 84, fig. 11-12. — Soris olivaceo-griseis ovarium implentibus et tumefacientibus, 1-1.5 mm. diam.; glomerulis sporarum facile secedentibus; sporis brunneis, subglobosis vel subovalibus angularibusque 9,5-13 μ. diam.; episporio minuto, levi donatis, granulosis, 1-nucleatis. 1616

Hab. in ovariis Lycuri phleoidis, Santa Rita Mountains, Arizona Amer. bor. (Griffiths et Thornber).

32. **Ustilago Mitchellii** Syd. Ann. Mycol. 1903, p. 23. — Soris ovaria destruentibus, atro-brunneis; sporis globosis v. subglobosis, rarius oblongis, obscure fusco-olivaceis, levibus, 8-12 × 7-10. 1617

Hab. in ovariis Iseilematis Mitchellii, Mt. Lyndhurst Australiæ (M. Koch).

33. **Ustilago Mühlenbergiæ** Henn. in Hedw. 1902, p. (61) nec. Clinton, in Journ. of Mycol. 1902 (Oct.), quia posterior. — Soris paniculas destruentibus tumefacientibusque, oblonge ovoideis, 3-6 mm. longis 2-3 mm. latis, diutius epidermide flavo-cinerescente tectis, duris, dein atris pulverulentis; sporis globosis vix acutangulis, fuscis, 4-4,5 μ. diam, episporio atro-fusco, levi. 1618

Hab. in paniculis Mühlenbergiæ Pringlei in Mexico, (Holway) et in Mühl. texanæ in Arizona Amer. bor. (Farlow).

34. **Ustilago montaniensis** E. et E. Journ. Myc. 1890, p. 119. — Massa sporarum atro-brunnea, subnigricante; sporis subglobosis, 10-14 μ. diam. v. ovato-oblongis, 12-16 × 10-12, episporio subtuberculoso-reticulato, pallide brunneo. 1619

Hab. in inflorescentia Mühlenbergiæ glomeratæ, quæ abortiva manet intra vaginas, Sand Coulee, Mont. Amer. bor. (Anderson).

35. **Ustilago Paspali-Thunbergii** P. Henn. in Hedw. 1904, pag. 140. — Soris atris, pulverulentis in floribus, eos omnino destruentibus; sporis subgloboso- vel oblongo-angulatis, atro-violaceis, punctatis. 1620

Hab. in floribus Paspali Thunbergii, Nikko Japoniæ (Kusano). — Dimensiones sporarum non indicatæ.

36. **Ustilago Penniseti-japonici** P. Henn. in Hedw. 1904, p. 140. — Soris cuticula alutacea, corniformi fissa inclusis, flores omnino destruentibus; sporis subgloboso-angulatis, atro-fuscis, 10-14 μ. granulatis. 1621

Hab. in floribus Penniseti japonici, Tokyo Japoniæ (Kusano).

37. **Ustilago phrygica** Magn. in Bull. Herb. Boissier 1903, n. 7, p. 574, tab. IV, fig. 1-7. — Soris axim spiculasque *Elymi* occupantibus et solide includentibus, globoso-ellipsoideis, 8-10 × 6,5-7,5, levibus brunneis, tenuissime reticulatis. 1622

Hab. in spicis Elymi criniti, in regione subalpina Phrygiæ.

38. **Ustilago Scolochloæ** Griffiths in Bull. of the Torr. Bot. Club. 1904, p. 86, fig. 4. — Soris epiphyllis, sæpe hypophyllis, matricem irregulariter contortam efficientibus, nigris, oblongo-linearibus, interdum confluentibus; sporis subglobosis, 10-13 μ. diam., intense fuscis, uniformiter denseque obtuse tuberculatis. 1623

Hab. in foliis Scolochloæ festucaceæ, Harnery Valley

Oregon Amer. bor. (Griffiths et Hunter). — *Ustil. echinatæ* Schroet. peraffinis.

39. **Ustilago sorghicola** Speg. Myc. argent. ser. II, 1902, p. 58. — 1624
Ovariis infectis subcylindraceis, fusco-albidis, longe e glumellis exsertis, utriculiformibus diu persistentibus, 4-8 mm. long., 2 mm. diam., per ætatem irregulariter disruptis, pulvere atro repletis; sporis tenuiter tunicatis, 5-8 μ. diam., obscure fuligineis, levissime eguttulatis v. guttula plus minusve magna ornatis.

Hab. in paniculis vivis Sorghi vulgaris prope La Plata, Argentinæ.

40. **Ustilago Andropogonis-saccharoidis** P. Henn. in Syd. Ustilag. exs. n. 251 (1901) = *Ustilago Andropogonis-hirtifolii* P. Henn. (ex ipso auctore).

BURRILLIA Setchell — Syll. XI p. 236, XIV p. 428.

1. **Burrillia Echinodori** Clint. in Journ. of Mycol. 1902, p. 154, *Doassansia Alismatis* (Nees) Cornu, Hark. in Proc. Calif. Acad. Ser. II, 1889, p. 231. — Soris foliicolis, areas subcirculares v. irregulares formantibus, prominulis, amphigenis, oblongis vel subsphæricis, ad centrum brunneo-parenchymaticis; sporis pallidis ovoideo-sphæroideis, raro e latere applanatis, crasse tunicatis, 12-18 μ. longis. 1625

Hab. in foliis Echinodori rostrati in California Americæ bor.

2. **Burrillia decipiens** (Wint.) Clint. in Journ. of Mycol. 1902, p. 154. Huc ducenda *Doassansia decipiens* Wint. — Syll. VII, p. 505.

CINTRACTIA Cornu — Syll. VII p. 480, IX p. 285, XI pag. 233, XIV p. 420, XVI p. 373.

1. **Cintractia algeriensis** Pat. Champ. Algero-Tunis., in Bull. Soc. 1626
Myc. de France T. XVIII, 1902, fasc. I. — Soris nigris, firmis, calcaratis, intra inflorescentiam ortis eamque complentibus, $^1/_2$-2 cm. longis, initio pellicula albida et fugaci circumdatis dein denudatis; cellulis pelliculæ 10-15 μ. diam.; sporis globosis vel ellipsoideis, levibus, 5-7 μ. diam., brunneis, radiatim dispositis.

Hab. in floribus Danthoniæ Forskahlii, Biskra Tunisiæ. — Valde noxia.

2. **Cintractia utriculicola** (Henn.) Clint. in Journ. of Myc. 1902, 1627
p. 143, *Cintractia leucoderma* (Berk.) Henn. f. *utriculicola* Henn. Hedw. 1895, p. 336 et *Cintr. axicola* (Berk.) Cornu f. *spicularum* Juel — Syll. XIV, p. 421. — Soris in ovariis evolutis, ovoideis

vel subsphæricis, 3–6 mm. diam., epidermide velatis dein apice erumpentibus; sporis intense rubro-brunneis, sæpe subopacis, interdum lateraliter compressis, oblongo-circularibus, levibus, 11-16 µ. longis.

Hab. in ovariis Rhynchosporæ spec. in Mexico.

3. **Cintractia affinis** Peck in Rep. of the State botanist. 1902, p. 28. 1628
— Soris elongatis continuis 12-48 mm. long., crusta alba velatis, dein erumpentibus, subpulverulentis, nigris; sporis globosis vel subglobosis, minute denseque papillatis, indistincte gelatinoso-hyalino-tunicatis, nigris, 15-20 µ. diam.

Hab. in caulibus vivis Rhynchosporæ macrostachyæ Smithtown, Amer. bor. — *C. leucodermæ*, affinis.

4. **Cintractia externa** (Griff.) Clint. in Journ. of Myc. 1902, p. 142, 1629
Tilletia externa Griffiths in Torr. Bot. Club. 1902, p. 290, f. 12.
— Soris atris, intra ovaria pulverulentis; sporis in massa nigris, forma magnitudineque variabilibus, subgloboso-ellipsoideis v. irregularibus vel angulosis, intense fuscis 18-23 × 10-13 vel subglobosis 17-21 µ. diam., granulosis; episporio crassiusculo, levi, subhyalino, 2-2,5 µ. crasso.

Hab. in ovariis Caricis filifoliæ pr. Buffalo, Wyo (Williams et Griffiths), in Montana (F. W. Anderson) in Nebraska (T. A. Williams) Amer. bor.

5. **Cintractia axicola** (Berk.) Cornu — Syll. VII, p. 480. — var. 1630
minor Clint. in Journ. of Mycol. 1902, p. 143. — Soris minoribus; sporis quoque minoribus 10-13 µ. long.

Hab. in paniculis Cyperi Grayii, New York, Amer. bor.

6. **Cintractia Cyperi** Clinton, North Amer. Ustil. in Proceed. Boston 1631
Soc. 1904, p. 400. — Soris in spicularum interiore nidulantibus demum totas glumas inficientibus, sed non deformantibus; sporis rufo-brunneis, plus minus agglutinatis sed facile secedentibus, oblongo-polyhedricis, levibus, sed ob compressionem minute atro-lineatis 12-18 µ. diam. vel usque 22 µ. long.

Hab. in inflorescentia Cyperi filiculmis, Connecticut Americæ borealis. — Subaffinis *Cintractiæ Montagnei*.

7. **Cintractia limitata** Clint. North Amer. Ustil. in Proceed. Boston 1632
Soc. 1904, p. 399. — Soris in spiculis nidulantibus initio inclusis et sporis semi-agglutinatis demum pulverulentis et spiculas purpureo-nigro inquinantibus; sporis vulgo atro-rufo-brunneis, ex ovoideo sphæroideis subinde leviter polyhedricis, levibus, 9,5-14 µ. long., contentu sæpe cavernoso.

Hab. in inflorescentia Cyperi filiculmis, Connecticut Americæ borealis.

8. **Cintractia Taubertiana** (Henn.) Clint. in Journ. of Myc. 1902, p. 142. — Huc ducenda *Ustilago Taubertiana* Henn. — Syll. XI, p. 231.

Hab. in fructibus Rhynchosporæ tenuis in Brasilia et Rhync. albæ, cephalanthæ, fascicularis, inexpansæ in Amer. bor.

9. **Cintractia Psilocaryæ** (Tr. et Earle) Clint. l. c. — Huc ducenda *Ustilago Psilocaryæ* Tr. et Earle — Syll. XVI. p. 368.

Hab. in ovariis Psilocaryæ nitentis, scirpoidis et rhynchosporoidis in Amer. bor.

10. **Cintractia Luzulæ** (Sacc.) Clint. l. c. — Huc ducenda *Ustilago Luzulæ* Sacc. — Syll. VII, p. 463.

Hab. quoque in ovariis Luzulæ campestris, Amer. bor.

DOASSANSIA Cornu — Syll. VII p. 502, IX p. 288, XI p. 235, XIV p. 427, XVI p. 378.

1. **Doassansia Peplidis** Bubák, Œsterr. Bot. Zeitschr. 1903. p. 51. — 1633
Soris minutis, amphigenis, hemisphæricis, flavo-brunneolis, diaphanis, fusco-marginatis, demum nigricantibus, sæpe totas folii paginas occupantibus, 150-250 μ. diam.; cellulis peripherieis sterilibus, fere castaneis, inæqualiter oblongis, 20-22 μ. long.; sporis plus minus regulariter globosis, 11-13,2 μ. diam. vel piriformibus 13-17 × 11-13, membrana tenui flavida, contentu hyalino.

Hab. in foliis Peplidis alternifoliæ prope Haskoro Bulgariæ (Ph. C. J. Podpera).

2. **Doassansia Reukaufii** P. Henn. Hedw. 1904, p. 434. — Soris hy- 1634
pophyllis gregariis, subglobosis, primo epidermide subpallida tectis, dein liberis rufo-brunneis, ca 140-200 μ. diam.; sporis subglobosis vel ellipsoideis angulatis ca. 6-10 μ. diam., intus granulatis, episporio rufo-brunneo, levi.

Hab. in foliis vivis Hydrocharitis morsus-ranæ. Weimar Germaniæ Julio 1904 (E. Reukauf). — Sori subglobosi, compactiusculi perfecta maturitate ab epidermide omnino solvuntur.

3. **Doassansia Utriculariæ** P. Henn. in Hedw. 1904, p. 78. — Ma- 1635
culis amphigenis, atris, irregulariter rotundatis vel confluentibus; soris gregariis punctiformibus, elevatis, atris; sporis subglobosoangulatis, 12-14, episporio levi, atro-fusco.

Hab. in foliis Utriculariæ reniformis, Serra de Itatiaia, Rio de Janeiro Brasiliæ (C. Ule).

ENTYLOMA De Bary — Syll. VII p. 487, IX p. 286, XI p. 233, XIV p. 423, XVI p. 375.

1. **Entyloma Leucanthemi** Syd. Ann. Mycol. 1903, pag. 237. — Ma- 1636
culis sparsis vel aggregatis, rotundatis 1-3 mm. diam., in vivo dilute flavidis, in sicco virescentibus, planis; sporis globosis, subglobosis v. rarius late ellipsoideis, levibus, dilute flavo-brunneolis, 35-56 × 30-48, membrana crassa, usque 8 μ.

Hab. in foliis Chrysanthemi Leucanthemi in Istria (L. Görz).

2. **Entyloma Holwayi** Syd. Ustilag. exs. n. 282. — Soris maculas 1637
utrinque conspicuas sparsas rotundatas v. irregulares initio flavo-brunneas dein brunneas 3-6 mm. latas, planas efformantibus; sporis globosis v. subglobosis, levibus, pallide flavo-brunneis, 11-13,5 μ. diam., episporio 1,5-2 μ. cr., hinc illinc irregulariter incrassato-angulato.

Hab. in foliis Cosmi sulphurei, Chapala Mexici (E. W. D. Holway).

3. **Entyloma Œnanthes** R. Maire in Bull. Soc. Bot. de France 1901, 1638
Tom. 48, pag. 208. — Pustulis albis, amphigenis, 1 mm. diam.; sporis sæpe concatenatis, globosis, hyalinis, episporio levi, 1-1,5 μ. crasso præditis, 8-4 μ. diam., rarius in matrice viva germinantibus; promycelio apice 2-4 sporidiola bacillaria vel fusiformia generante; conidiis nullis visis.

Hab. in foliis vivis Œnanthes apiifoliæ, Zerubia Corsicæ.

4. **Entyloma Lini** Oudem. Contr. XX, Mycol. Pays-Bas, 1904, p. 1091 1639
(Ned. Kruidk. Arch.). — Sporis in foliis, nunc immutatis, nunc flavo-maculis orbicularibus 1-3 mm. diam. innatis et late distributis inter cellulas mesophylli, globulosis subinde oblongis, pallide fulvis 9,3-14 μ. diam., episporio levi, perfecte hyalino, e stratis concentricis pluribus composito.

Hab. in foliis Lini usitatissimi, Wageningen Hollandiæ (L. Broekema). — Germinatio nondum observata.

5. **Entyloma Tozziæ** Heinricher, Berichte Deut. bot. Gesell. 1901, 1640
p. 363, c. icon. — Sporis in parenchymate foliorum intercellularibus, globoso-ellipsoideis, 8-12 μ. diam., membrana crassa duplici.

Hab. in foliis Tozziæ alpinæ, Hall Tiroliæ. — Nec bullas nec alias deformationes generat.

6. **Entyloma Ameghinoi** Speg. Mycet. Argent. ser. II, 1902, pag. 57. — Maculis vix ullis pallidis, diffusis; acervulis in parenchymate nidulantibus, extus, in sicco, vix prominulis, 100-250 μ. diam., sæpe epiphyllis et confluentibus; sporis 1-4 in quaque cellula e globoso-ellipsoideis 16-24 μ. long. v diam., tunica crassiuscula vestitis, levibus 1-2 guttulatis, ochraceis. 1641

Hab. in foliis vivis Ranunculi Cymbalariæ secus Rio Chico, Patagonia austr.

7. **Entyloma Schweinfurthii** Henn. in Hedw. 1902, p. (210). — Maculis amphigenis, sparsis vel gregariis, oblongis vel irregulariter rotundato-explanatis, 1-2,5 × 1-1,5 mm., atris v. atro-plumbeis; sporis epidermide tectis, subglobosis, ovoideis v. ellipsoideis, intus granulatis, 14-20 × 13-18, episporio crasso, levi, atro-brunneo. 1642

Hab. in foliis Polygoni monspeliensis, pr. Pyramidem Giseh, Ægypt. (Schweinfurth).

8. **Entyloma Dietelianum** Bubák, Ann. Mycol. 1903, p. 255, *Urophlyctis pulposa* Bub. in Œsterr. bot. Zeitschr. 1900, n. 9, nec Auctor. — Pustulis sparsis v. gregariis, 0,5-1 mm. diam., rufo-brunneis, initio subtremelloideis, dein nigricantibus, diu epidermide tectis; sporis versiformibus, globosis v. ovoideis v. ob pressionem mutuam angulosis elongatisque, 9-13 μ. diam. v. 11-15,5 × 11-13, e mycelio lateraliter oriundis; exosporio levi, subgelatinoso, hyalino, 1 μ. cr; endosporio flavo-brunneo, 1 μ. cr. 1643

Hab. in foliis Ambrosiniæ Bassii, Sinnai, Punta Corsetta Sardiniæ (Martelli).

9. **Entyloma hieronense** Har. et Pat. Bull. Soc. Myc. 1904, p. 61. — Soris maculas utrinque conspicuas longitudinaliter seriatas, irregulares paululum prominulas, atro-cinereas, emarginatas, $^1/_4$-$^1/_2$ mm. latas effermantibus; sporis numerosis totum folii parenchyma occupantibus, crebre et dense aggregatis, pallide (sub lente) brunneis, valde difformibus et varie angulatis, episporio crassiusculo subfusco et obscuriori præditis, plerumque 8-10 μ. cr. 1644

Hab. in foliis basilaribus Poæ bulbosæ in arenosis pr. Hieronem (Noirmoutier) Galliæ occid. (Ménier).

10. **Entyloma betiphilum** Bubák, Zeitschr. Landwirth. Versuchsstat. Œsterr. 1901, p. 477. — Species dubia, immo ex ipso cl. auct. in litt. delenda.

Hab. parasitice in perigoniis Betæ vulgaris in Austria.

MELANOPSICHIUM G. Beck. in Ann. Natur hist. Hof-Mus. Wien 1894, n. 9, p. 22. (Etym. *melanos* niger et *psix psichos* mica). — Sporæ muco gelatinoso dein indurato in crustas atras conglutinatæ, in loculis intra matricem excavatis nidulantes, involucro duriusculo cinctæ. Cetera ut in *Ustilagine*.

1. **Melanopsichium austro-americanum** (Speg.) Beck loc. cit. *Ustilago austro-americana* Speg. — Syll. VII, p. 457: cfr. Clint. in Journ. of Mycol. 1902, p. 141.

   Hab. in caulibus vivis Polygoni avicularis, P. hydropiperis, P. lapathifolii, P. lapath. var. incarnati, P. pensylvanici, P. virginiani, P. acris, in Argentina et in Amer. bor.

MYCOSYRINX Beck von Mannagetta in Ann. Naturhist. Hof-Museum Wien 1894, p. 123 (Etym. *myces* et *syrinx* tubus, fistula). A genere affini *Schröteria* differt hyphis sporigeris intra stroma subtubulare inclusis sporisque potius acrogenis ut in gen. *Ustilagine*.

1. **Mycosyrinx Cissi** (DC.) Beck l. c., Penzig in Malp. 1900, p. 6, tav. XIX-XX, *Schröteria Cissi* (DC.) De Toni — Syll. fung. VII, pag. 501. — Sec. Penz. l. c. nascitur pluribus locis in America tropicali et Africa occid. in pedunculis floralibus Cissi sicyoidis, C. acidæ, C. uviferæ, C. diffusifloræ, C. erosæ etc.
2. **Mycosyrinx arabica** (Henn.) Penz. l. c. *Schröteria Cissi* var. *arabica* P. Henn. — Syll. fung. XI, pag. 235. — *Schr. arabica* P. Henn. in Bull. Herb. Boiss. 1893, p. 115. — A. *M. Cissi* sporis paullo majoribus et intra ramulos vegetativos ramulosque racemorum generatis (nec in pedunculis floralibus). 16

   Hab. in Cisso quadrangulari in Arabia.

SOROSPORIUM Rud. — Syll. VII p. 511, IX p. 288, XI p. 237, XIV p. 428, XVI p. 379.

1. **Sorosporium Caricis** Ferraris in Ann. Ist. Bot. Roma 1902, p. 191. — Soris omnino inclusis, aterrimis, pulverulentis; glomerulis subglobosis, atris e sporis numerosis compositis (2-20), 14-36 μ. diam.; sporis rotundato-polygonalibus, subæqualibus, fusco-brunneis, 8-12 μ. diam. 16

   Hab. in floribus masculis Caricis præcocis prope Pinerolo Italiæ bor.

2. **Sorosporium Arundinellæ** Syd. in Hedw. 1901, p. (2). — Ovaria ex toto implens, destruens et massas aterrimas formans; glomerulis 16

sporarum, forma et magnitudine irrregularibus, opacis e sporis numerosis compositis; sporis globosis v. subglobosis, opacis, atro-brunneis, verruculis obsitis, 5-6,5 μ. diam.

Hab. in ovariis Arundinellæ anomalæ, Omiya, Saitama Japoniæ (Nishida et Nambu).

3. **Sorosporium provinciale** (Ell. et Gall.) Clinton, Journ. of Mycol. 1902, pag. 142, *Sorosporium Ellisii* Wint. var. *provinciale* Ell. et Gall. — Syll. IX, p. 288. — Soris linearibus, 6 cm. longis, erumpentibus; massa sporarum nigro-brunnea, granulosa, 50-100 μ. diam. vel longiore; sporis ovoideis vel subsphæricis, minute verruculosis, episporio 3 μ. crasso, 14-19 μ. crassis, rufo-brunneis. 1648

Hab. in inflorescentia Andropogonis furcati, Saline County Mo. in Nebrasca Amer. bor.

4. **Sorosporium contortum** Griffiths in Bull. of the Torr. Bot. Club. 1904, p. 83, fig. 1-3. — Soris 5-30 mm. longis, 0,6-1,5 mm. crassis, immersis vel in columellam cylindricam desinentibus; glomerulis sporarum subglobosis vel ovoideis, sæpe angulosis, 50-62 vel 50-80 μ. diam.; sporis subglobosis vel anguloso-compressis, intense fuscis, 5-8 μ. diam., episporio minuto, levi donatis, 1-nucleatis. 1649

Hab. in floribus Andropogonis contorti, Santa Rita Mountains, Arizona Amer. bor. (Griffiths).

5. **Sorosporium Eriochloæ** Griffiths in Bull. of. the Torr. Bot. Club. 1904, p. 84. fig. 13-16. — Soris pulverulentis, nigris, partes florales replentibus et subtumefacientibus; glomerulis subglobosis v. angulosis irregularibusque, 65 × 50 vel 50-105 μ. diam.; sporis intense fuscis, subglobosis, 10-13,5 μ. diam., angulosis, episporio minuto levi donatis, granulosis, 1-nucleatis. 1650

Hab. in floribus Eriochloæ punctatæ, Empire Rauch, Santa Rita Mountains, Arizona Amer. bor. (Griffiths et Thornber).

6. **Sorosporium Williamsii** Griffiths in Bull of the Torr. Bot. Club. 1902, pag. 296, fig. 5. — Soris culmicolis pulverulentis, totam plantam destruentibus; sporis in massam cylindraceam erectam vel curvulam, 65-100 × 20-30 conglutinatis, maturitate indistinctis, fuscis, subglobosis vel angularibus, 5-7 μ. diam., episporio levi crassiusculo. 1651

Hab. in vaginis et in culmis Stipæ Richardsonii in monte Big Horn, Wyo. Amer. bor. (T. A. Williams et Dr. Griffiths).

SPHACELOTHECA De Bary. — Syll. VII p. 499.

1. **Sphacelotheca Hydropiperis** (Schum.) De Bary — Syll. VII, f. 499. 1652
— var. **borealis** Clint. North Amer. Ustil. in Proceed. Boston. Soc. 1904, pag. 395. — A typo differt sororum columella robustiore et pseudomembrana minus prominente, cellulis sterilibus hyalinis vel dilute coloratis, subsphæricis, crassiuscule tunicatis; sporis paullo minoribus quam cellulis sterilibus, violaceo-purpureis, ovoideo-sphæricis vel subirregularibus, vix minutissime granulosis vel fere levibus 8-11 μ. long.

Hab. in ovariis Polygoni bistortoidis, Washington et Wyoming Amer. bor.

2. **Sphacelotheca Chrysopogonis** Clint. North Amer. Ustil. in Pro- 1653
ceed. Boston Soc. 1904, p. 387. — Soris ovaria omnia plerumque occupantibus, lineari-oblongis, 3-5 mm. longis, inter glumas membranas steriles et massas sporarum semi-agglutinatarum, nigras, formatibus; columella minuta sed evidenti; cellulis sterilibus hyalinis, sæpe in glomerulos secedentibus, subsphæricis, sporis paullo latioribus; sporis rufo-brunneis, ovoideo-subsphæricis, subinde angulosis, sæpe intus punctatis, obscure verruculosis, vel sublevibus 8-11 μ. longo.

Hab. in ovariis Chrysopogonis nutantis, Chappala Mexici. — Inter *Sph. Sorghi* et *Sph. moniliferam* media species.

3. **Sphacelotheca Seymouriana** Clint. North Amer. Ustil. in Proceed. 1654
Boston Soc. 1904, pag. 387, *Sorosporium Syntherismæ* (S.) Farl. p. p., *Sorosporium Ellisii* Winter p. p. — Soris ovaria occupantibus et massas lineares 4-7 mm. longas formantibus et inter glumas extendentibus, apice erumpentibus et columellam sporasque agglutinatas ostendentibus; cellulis sterilibus hyalinis, vulgo subsphæricis et membranam irregularem formantibus, sporas magnitudine æquantibus; sporis læte brunneis, vulgo subsphæricis vel polyhedricis, rarius ovoideis 7-12 μ. longis, sublevibus, contentu sæpe lacunoso.

Hab. in ovariis Andropogonis virginici, Alabama, et Andropogonis spec. Georgia Amer. bor.

4. **Sphacelotheca Paspali-notati** (Henn.) Clint. in Journ of Mycol. 1655
1902, p. 140, *Ust. Paspali-notati* Henn. sp. n. in herb. Holway. — Soris linearibus, 4-6 cm. longis; sporis rubro-brunneis, ovoideo-globosis vel subangulosis, minute verruculosis, 7-10 μ. diam.

Hab. in inflorescentia Paspali-notati, in Mexico Amer. bor.

5. **Sphacelotheca pamparum** (Speg.) Clint. in Journ. of Mycol. 1902,

p. 140. — Huc ducendæ sunt, sec. cl. Auct., *Ustilago pamparum* Speg. — Syll. VII, p. 455 — et *Ust. Kolaczakii* Kühn. — Syll. l. c.

6. **Sphacelotheca diplospora** (Ell. et Ev.) Clint. in Journ. of Mycol. 1902, p. 140. — Huc ducenda *Ustilago diplospora* Ell. et. Ev. — Syll. IX, p. 284.

7. **Sphacelotheca Sorghi** (Link). Clint. l. c. — Huc ducenda *Ustilago Sorghi* (Lk.) Pass. — Syll. VII, p. 456 — seu *Cintractia Sorghi vulgaris* Clint. in Bull. Agr. Exp. Stat. 1897, p. 404.

8. **Sphacelotheca Ischæmi** (Fuck.) Clint. l. c. — Huc ducendæ: *Ustilago Ischæmi* Fuck. — Syll. VII, pag. 454 — *Ustilago cylindrica* Peck. — Syll. VII, p. 468 — *Cintractia Ischæmi* Syd. in Œst. Bot. Zeit. 1901, p. 12.

9. **Sphacelotheca monilifera** (Ell. et Ev.) Clint. l. c. — Huc ducendæ: *Ustilago monilifera* Ell. et Ev. — Syll. XIV, p. 420 — *Ustil. Andropogonis-contorti* Henn. n. spec. in herb. Holway. — An *Ustil. filiformis* Henn. — Syll. XVII, p. 477.

10. **Sphacelotheca Andropogonis-hirtifolii** (Henn.) Clint. l. c. — Huc ducendæ: *Ustilago Andropogonis-hirtifolii* Henn. — Syll. XVI, p. 372 — et *Ust. Andropogonis-saccharoidis* Henn. in Syd Ustil. 1901, n. 251.

11. **Sphacelotheca occidentalis** (Seym). Clint. l. c. — Huc ducendum *Sorosporium Ellisii* Wint. — var. *occidentalis* Seym. in Ell. et Ev. M. A. Fr. 2265, fasc. 1889, et *Ustilago Andropogonis* Kell. et Sw. — Syll. IX, p. 284.

12. **Sphacelotheca montaniensis** (Ell. et Holw.) Clinton l. c. — Huc ducenda *Ustilago montaniensis* Ell. et Holw. — Syll. IX, p. 284.

13. **Sphacelotheca Reiliana** (Kühn) Clint. l. c. — Huc ducendæ *Ustilago Reiliana* Kühn — Syll. VII, p. 471 — *Cintractia Reiliana* (Kühn) Clint. in Bull. Ill. Agr. Exp. Stat. 1900, p. 346.

THECAPHORA Fing. — Syll. VII p. 507, IX p. 289, XI p. 237, XIV p. 428.

1. **Thecaphora Thornberi** Griffiths in Bull. of the Torr Bot. Club. 1656
1904, p. 88, f. 9-10. — Soris ovaria tumefacientibus, sphæricis 4-7 v. ultra mm. diam., maturitate irregulariter erumpentibus; massa sporarum 70-120 μ. diam., rufo-brunnea; sporis episporio minuto donatis, granulosis, 10-13 μ. diam. ovalibus, subsphæricis sæpe compresso-angulosis, semper conglutinatis.

Hab. in ovariis Clathoricis lanuginosæ, Santa Rita Mountains, Arizona Amer. bor. (Griffiths et Thornber).

2. **Thecaphora mexicana** Ell. et Ev. apud Clinton in Journ. of Mycol. 1902, p. 146. — Soris caulicolis, pustulas subglobosas 4 mm. diam., firmas, erumpentes formantibus; massa sporarum rubro-lutea, subglobosa 50-90 μ. diam.; sporis 15-30 in singulis glomerulis, initio angulosis dein irregularibus, oblongo-polyhedricis vel subglobosis, parce papillatis, 16-22 raro 25 μ. diam. 1657

Hab. in caulibus Guardiolæ platyphyllæ in Mexico Amer. bor. (Doct. Palmer).

3. **Thecaphora tunicata** Clint. North Amer. Ustil. in Proceed. Boston Soc. 1904, pag. 422. — Soris floricolis, massas subsphæricas 2-3 mm. formantibus, florum involucris inclusis, initio firmis, dein erumpenti-pulveraceis; glomerulis læte castaneo-brunneis, oblongis vel subsphæricis polygonis 70-100 μ. long.; sporis diu connexis subhyalino-flavidis, omnino irregularibus, vulgo oblongo-sphæroideis, 12-18 μ. long. vel elongato-clavatis usque 27 μ. long., superficie libera episporio prominenti saturate colorato, verrucoso 3-6 μ. crasso prædita. 1658

Hab. in floribus Boerhaviæ in Mexico.

4. **Thecaphora piluliformis** B. et C. — Syll. VII, p. 509. — Huc ducenda sunt, sec. cl. Clinton in Journ. of Mycol. 1902, p. 145, *Tolyposporium Davidsonii* Diet. — Syll. XI, p. 235 — *Pœcilosporium Davidsonii* Diet. — Syll. XVI, p. 380 — *Sorosporium Bigeloviæ* Griff. in Bull. Torr. Bot. Club. 1902, p. 380, cum icone.

Hab. in inflorescentiis Bigeloviæ venetæ, in California, Bigeloviæ spec. in Arizona Amer. bor. — Secundum cl. Clinton l. c. Dietel et Holway per errorem determinaverunt matricem *Tolyposporii*, quæ non est Atriplex sed Bigelovia.

5. **Thecaphora cuneata** (Shof.) Clint. l. c. — Huc ducenda: *Sorosporium cuneatum* Shofield. — Syll. XIV, pag. 429 — *Sorosporium Solidaginis* Ell. et Ev. — Syll. XI, p. 237.

Hab. in Grindelia squarrosa, Nebraska Amer. bor. et in Solidagine missouriensi, Kansas Amer. bor.

6. **Thecaphora Trailii** Cooke — Syll. VII, p. 510 — Sec. cl. Clinton in Journ. of Mycol. 1902, pag. 146 huc ducendæ sunt: *Thecaphora Cirsii* Boud. — Syll. VII, p. 510 — *Schizonella subtrifida* Ell. et Ev. — Syll. IX, p. 288 — *Pœcilosporium Trailii* (Cooke) Vesterg. mycet. rar. sel. 1902, p. 152.

7. **Thecaphora californica** (Hark.) Clint. l. c. — Huc ducendum *Sorosporium californicum* Hark. — Syll. VII, p. 514.

TILLETIA Tul. — Syll. VII p. 481, IX p. 286, XI p. 233, XIV p. 421, XVI, p. 373.

1. **Tilletia texana** Long, apud Clint. in Journ. of Mycol. 1902, p. 149. — Soris ovaria destruentibus, ovoideo-oblongis, 3-5 mm. diam.; massa sporarum rubro-brunnea cellulis parenchymaticis hyalinis obvoluta; sporis aurantiaco-luteis subglobosis, tuberculis 2-3 μ. d. prominentibus donatis, episporio hyalino, 19-25 μ. diam. 1659

   Hab. in ovariis Hordei pratensis, Texas Amer. bor.

2. **Tilletia hypsophila** Speg. Myc. arg. ser. II, 1902, p. 59. — Ovariis infectis, glumellis immutatis sed late apertis, cinctis, late ellipticis, fuscis 1,5-2,5 mm. long., compactiusculis, inter digitos compressis pulverem ferrugineum emittentibus; sporis ab initio liberis 18-24 μ. diam., tunica crassa duplici vestitis, interna ferruginea, dense ruguloso-verruculosa, externa levi hyalina. 1660

   Hab. in ovariis Stipæ cæspitosæ et St. tenuissimæ, Tucuman et Salta Argentinæ.

3. **Tilletia Wilcoxiana** Griffiths in Bull. of the Torr. Bot. Club. p. 88, fig. 17. — Soris totum ovarium implentibus et tumefacientibus, olivaceo-griseis, fusiformibus; sporis in cumulo pallide brunneis, subglobosis, 15-19 μ. diam., hyalinis, episporio crassiusculo donatis. 1661

   Hab. in ovariis Stipæ eminentis v. Andersonii, Santa Monica Californiæ (H. E. Hasse).

4. **Tilletia Earlei** Griffiths in Bull. of the Torrey Bot. Club. 1902, p. 290, fig. 2. — Soris culmicolis, internodia tumefacientibus, per rimas usque 10 cm. longas erumpentibus, culmos totos contorquentibus; sporis pallide brunneis, globosis, tuberculis validis circ. 2 μ. crassis obvolutis, episporio hyalino, tubercula includente, levi 13-18 μ. diam. 1662

   Hab. in culmis deformatis Agropyri occidentalis, Aberdeen, S. D. Amer. bor.

5. **Tilletia Velenovskyi** Bubák, Œsterr. Bot. Zeitschr. 1903, p. 51. — Soris brunneo-violaceis, ovaria implentibus ibique inclusis; sporis globosis v. breve ovoideis, 22-28 μ. diam.; episporio læte violaceo-brunneolo, translucido, striato; striis depressis, vix 1 μ., areolas 4-angulares v. polygonas 2-4 μ. diam. formantibus. 1663

   Hab. in ovariis Bromi arvensis pr. Sadovo Bulgariæ (Velenovsky). — *Till. Lolii* subaffinis.

6. **Tilletia Bornmülleri** Magn. in Bull. Herb. Boissier 1903, n. 7, p. 574, tab. IV, fig. 8-12. — Sporis in ovariis nidulantibus, vix 1664

pulverulentis, subglobosis, 23 × 20, eleganter reticulatis, areolis in sporæ diametro majori 8-10.

Hab. in ovariis Elymi criniti in regione subalpina Phrygiæ.

7. **Tilletia Menieri** Har. et Pat Bull. Soc. Mycol. 1904, p. 61. — Soris 1665
brunneo-ferrugineis, ovaria complentibus; sporis pallide ferrugineis, globosis, 20-24 μ. diam., areolatis, episporio 4 μ. crasso, tuberculis prædito.

Hab. in ovariis Phalaridis arundinaceæ pr. St. Philibert-de-Grand-Lieu Galliæ occidentalis (Ménier).

8. **Tilletia? Chrysosplenium** v. Höhn. Ann. Myc. 1904, pag. 38. — 1666
Soris archegonia *Bryi* sp. vesiculoso-deformata, ca. 900 μ. long. et 700 μ. lat. explentibus, aureo-ochraceis, pulverulentis, primum tunica archegoniorum tectis, dein ex illa erumpentibus; sporis non conglobatis, globosis vel subglobosis, 22-28 μ. crassis, subtiliter sed acute et dense spinuloso-verrucosis, aureo-ochraceis.

Hab. in archegoniis Bryi (cæspiticii?) adhuc vivis prope Michelet (Fort national) Algeriæ (Kabyliæ), mense Aprili.

9. **Tilletia? abscondita** Syd. Ann. Mycol. 1903, pag. 174. — Sporis 1667
pulveraceis in capsulis *Anthocerotis* nidulantibus, globosis v. subglobosis, rarius ellipsoideis, pallide brunneis verrucoso-reticulatis, 11-17 μ. diam., rarius usque 20 μ. long., episporio circ. 2,5 μ. cr.

Hab. in capsulis Anthocerotis dichotomi, in horto Monrepos, in insula Corfù. — Diu sporæ supra descriptæ ut Hepaticæ microsporæ habitæ sunt, tamen ut Ustilaginea parasitica aptius, teste Sydow, habendæ.

10. **Tilletia Maclagani** (Berk.) Clint. in Journ. of Mycol. 1902, p. 148. — Huc ducenda *Ustilago Maclagani* Berk. — Syll. VII, p. 460 — *Ustil. rotundata* Arth. VII, pag. 479, *Tilletia rotundata* (Arth.) Ell. et Ev. N. A. F. 1887, n. 1894, *Tilletia rotundata* Mass. in Kew. Bull. 1899, p. 145.

11. **Tilletia Cathestechi** (Henn.) Clint. l. c. p. 149. — Huc ducenda *Ustilago Cathestechi* P. Henn. — Syll. XIV, p. 417.

TOLYPOSPORIUM Wor. — Syll. VII p. 501, XI p. 235, XIV p. 425, XVI p. 377.

1. **Tolyposporium Eriocauli** Clint. Rhodora II, 1901, p. 82, f. 1. — 1668
Soris griseolis, ovoideis, subinde bilobis, 1-2 mm. long. facile ruptis; sporarum glomerulis firmis, nigris, perfecte opacis, irregulariter oblongis v. subsphæricis, sæpe angulosis, 65-275 μ. diam.; sporis subglobosis, læte coloratis, inter se adhærentibus, secedendo

vero, ob rupturam, reticulationes spinulasque ostendentibus v. integris remanentibus, 8-11 μ. diam., exclusis rupturæ processibus.

Hab. in ovariis subimmutatis florum ♀ Eriocauli septangularis, Ellis Mass. Amer. bor.

2. **Tolyposporium Lepidoboli** Mc Alp. Proc. Linn. Soc. New S. Wales 1668
1904, pag. 127. — Nigrum, pulveraceum intra ovaria evolutam; sporis ex articulis numerosis arcte connexis compositis versiformibus, 80-90 μ. long.; articulis globulosis v. polygoniis 12-14 μ. diam., v. 12-16 × 10-11, episporio asperulo.

Hab. in ovariis Lepidoboli drapetocolei, Dimboola Victor Australiæ (Reader).

TOLYPOSPORELLA Atk. — Syll. XIV p. 427.

1. **Tolyposporella Brunkii** (Ell. et Gall.) Clint. in Journ. of Mycol. 1669
1902, p. 147. — Huc ducendæ *Ustilago* (*Sorosporium? Brunkii* Ell. et Ev. — Syll. IX, p. 284 — et *Ustilago apiculata* Ell. et Gall. in Tex. Agr. Exp. Station Bull. 1890, p. 29 (nomen).

Hab. in ovariis Andropogonis argentei, perforati, saccharoidis, in America bor.

2. **Tolyposporella? Nolinæ** Clint. North Amer. Ustil. in Proceed. Bo- 1670
ston Soc. 1904, p. 426. — Soris phyllogenis dense gregariis confluentibusque et stratum formantibus; glomerulis variabilibus e sporis 2-3-4-pluribusve varie connexis et sæpe secedentibus formatis; sporis olivaceo-nigris oblongis vel ovoideis globosisve, lateribus adhærentiæ applanatis 11-18 μ. long., episporio crassiusculo, levi.

Hab. in foliis Nolinæ microcarpæ Arizona, Amer. bor.

TRACYA Syd. — Syll. XVI p. 378.

1. **Tracya Hydrocharitis** Lagerh. in Vestergr. Mye. rar. selecti, Bot. 1671
Not. 1902, p. 175. — Maculis nullis; soris epiphyllis, crebre sparsis v. stratu firmo sporarum constitutis, nudo oculo nigris, punctiformibus, rotundatis, 130-150 μ. diam.; sporis brunneis e vertice visis 7-9 μ. diam., rotundato-angulosis e latere rectangularibus.

Hab. in foliis vivis Hydrocharitis morsus-ranæ, Stockholm in Suecia. — Cfr. supra *Doassansia Reukaufii*, p. 481.

UROCYSTIS Rab. — Syll. VII p. 515, IX p. 290, XI p. 237, XIV p. 429, XVI p. 380.

1. **Urocystis Anemones** (Pers.) Schroet. — Syll. VII, p. 518. — var. 1672

andina Speg. Myc. argent. ser. II, 1902, p. 59. — Soris bulbosis aterrimis, initio epidermide velatis, compactis dein erumpentibus et pulverulentis; glomerulis ex elliptico difformibus, 20-40 × 20-30; sporis centralibus ellipsoideis, 10-18 × 8-10, peripheris subglobosis 5-7 × 4-5 obscurioribus.

Hab. ad caules, involucra et flores Barneoudiæ majoris, in alpinis, prope Mendoza, Argentinæ. — Var. **japonica** P. Henn. Pilze Japan. II, p. 150 (Hedw. 1904). A typo differt soris multo amplioribus, usque 20 cm. lat., glomerulis quoque majoribus, 30-60 × 30-40, sporis centralibus numerosioribus, globoso-ellipsoideis angulosisque, castaneis, 10-15 μ. diam., peripheris pallidioribus, levibus 6-9 μ. diam. In caulibus et foliis Anemones japonicæ, Tosa Japoniæ (K. Nakano).

2. **Urocystis granulosa** Clint. in Journ. of Mycol. 1902, p. 151. — 1673
Soris paniculas occupantibus, ovoideo-oblongis, 5-10 mm. longis, massam globosam granulosam sporarum rufo-brunneo-nigram suberumpentem 28-50 μ. crassam formantibus; cellulis parenchymaticis rubro-luteis, ovoideis vel subsphæricis, sporis repletis, 8-13 μ. latis; sporis intense rubro-brunneis, ovoideo-sphæricis v. pro mutua pressione polyhedricis, levibus 13-19 μ. diam.

Hab. in ovariis Stipæ comatæ, Idaho Amer bor. (Hayden).

Genera dubiæ sedis.

USTILAGINOIDEA Bref. — Syll. XIV p. 431, XVI p. 382.

Genus ad interim hic locatum sed, testibus cll. Brefeld et Hennings, statum chlamidosporicum Hypocreacearum spp. sistit. Huc quoque spectat *Ustilaginoidea flavo-nigrescens* (Berk. et C.) Hennings, Hedw. 1904, p. 156, *Ustilago* B. et C. — Syll. VII, p. 467.

1. **Ustilaginoidea Dichronemæ** P. Henn. Fungi Amaz. I, pag. 156 1674
(Hedw. 1094). — Sclerotiis ovaria occupantibus et ea omnino destruentibus, globosis, intus duris, corneis flavidis, pulvere atro crasso chlamydosporarum tectis ca. 2-2 $^1/_2$ mm. diam.; chlamydosporis globosis atro-cinnamomeis, dense verrucosis, 5-7 μ.

Hab. in ovariis Dichronemæ puberæ Rio Negro, Manaos Amer. merid. — Sclerotia hujus speciei soros *Cinctractiæ Caricis* fere æmulantur.

1. **Ustilaginoidea usambarensis** P. Henn. Fungi Afr. orient. II, in 1675
Bot. Jahrb. XXVIII. p. 38. — Sclerotiis ovaria occupantibus et ea deformantibus, subglobosis, depressis, cinereo-olivaceis, superne

rimosis, ca. 2 mm. diam., intus duris, pallidis; sporulis subglobosis, hyalino-flavescentibus granulato-verrucosis, 4-5 μ. diam.

Hab. in ovariis Panici spec., Usambara Afr. orient. (KUMMER).

GRAPHIOLA Poit. — Syll. VII p. 522, XVI p. 381.

1. **Graphiola Phœnicis** (Moug.) Poit. — Syll. VII, p. 522. — var. **Trachycarpi** P. Henn. Pilze Japan II, p. 150 (Hedw. 1904). — Sporis globoso-angulatis, 3-4 μ. diam., membrana levi, crassa, flavo-brunneola. 1676

Hab. in foliis Trachycarpi excelsæ, Tosa, Yokimura Japoniæ (T. YOSHINAGA)

2. **Graphiola macrospora** Penz. et Sacc. in Malp. 1901, p. 232. — Soris laxe gregariis, erumpenti-superficialibus, nigricantibus, globulosis, rugosis, basi sæpe coarctatis, dein umbilicatis, 0,7-1 mm. lat., filamentis fasciculatis, filiformibus, subtortuosis, 2,5 μ. cr., ochraceo-guttulatis; sporis globosis, non v. vix angulosis, 11-15 μ. diam., atro-fuligineis, initio non omnino levibus dein levigatis. 1677

Hab. in rhachide foliorum Calami, Plectocomiæ etc. in horto bot. Bogor., in insula Java. — Exemplaria non perfecta, hinc stirps adhuc dubia et ulterius inquirenda.

3. **Graphiola cocoina** Pat. Bull. Soc. Mycol. 1904, p. 137. — Pseudoperidiis præcipue epiphyllis, sparsis, atris, corneis, elongato-ellipticis, convexis, $^1/_4$-$^1/_2$ mm. longis, rarius solitariis, sæpius 3-5-aggregatis confluentibusque, ex hyphis brunneis gracilibus 2-3 μ. cr. rectis ramosis apice incrassatis subtorulosis compositis; ostiolis linearibus rectis v. flexuosis gleba flavidula ex hyphis erectis parallele stipatis, pellucidis; sporis superpositis ellipsoideis, levibus, 3-5 μ. longis, flavidulis. 1678

Hab. in foliis vivis Cocoes nuciferæ in insulis Gambier (SEURAT).

PHYCOMYCETÆ De Bary

Syll. VII p. 181, IX p. 335, XI p. 239, XIV p. 432, XVI p. 383.

Fam. 1. **Mucoraceæ** De Bary.

MUCOR Mich. — Syll. VII p. 190, IX p. 335, XI p. 239, XIV p. 432, XVI p. 383 *).

1679 1. **Mucor hiemalis** C. Wehmer in Ann. Mycol. 1903. pag. 39, cum ic. — Cæspitulis 1 cm. ca. altis, bombycinis, albis, rarius flavido-brunneolis; hyphis myceliaribus variis 7–14 usque 30 μ. diam.; sporangiferis simplicibus, rarius ramosis, erectis, serius collabascentibus; sporangiis globosis, flavidis v. griseis, 52 μ. diam., tunica diaphana, levi; columella globoso-ovoidea, hyalina, 28-48 μ. diam., 25-36 × 21-29; sporis numerosis magnitudine et forma ludibundis, 7 × 3,2 μ., ellipsoideis rarius sphæricis, tenue tunicatis; zygosporis non visis.

Hab. in foliis cannabinis udis putrescentibus, hieme in Germania.

1680 2. **Mucor dubius** C. Wehm. in Centralbl. f. Bakteriol. u. Paras. II, Abth. VII, p. 318, fig. 15–23. — Cæspitulis 2–3 cm. alt., griseo-flaventibus v. brunneo-griseis; hyphis fertilibus 1 cm. long., initio simplicibus, dein (semper?) sympodialiter ramosis et tunc 2–3 cm. long.; sporangiis globosis, brunneo-flavidis, diaphanis, parvulis, 50 μ. diam., columella globosa, sessili, hyalina, levi, circ. 25 μ. diam.; sporis inæqualibus, ellipsoideis v. fabæformibus, 6 × 4, rarius 4 × 3, usque 14 × 9, membrana tenui; zygosporis ignotis; mycelio interdum in gemmas toruliformes abeunte.

Hab. in crustulis oryzinis javanicis (*Ragi*) in Java, socio *Rhyzopode Oryzæ* etc. *Mucori javanico* affinis.

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*) Quoad species zymogenas *Mucoris, Rhizopodis, Chlamidomucoris*, cfr. illustrationes cll. Wehmer, Chrzaszcz, Vuillemin etc. in Centralbl. f. Bakt. II Abt. 1901, Revue mycolog. 1902 etc.

3. **Mucor flavus** Bain. Bull. Soc. Myc. 1903, pag. 157 (absque dia- 1681
gnosi). — Hypha fertili initio hyalina dein ochraceo-flava usque 8 mm. alta; sporangiis globosis griseo-cyanescentibus, membrana evanescente et collarium angustum relinquente; sporis numerosissimis ovoideis, 9-12 × 4,2, rarius sphæricis, 4,2 μ. diam. vel reniformibus; columella sphærica dein ovoidea.

Hab. in Agaricis putrescentibus in Gallia. — Zygosporæ tandem generantur.

4. **Mucor exitiosus** Massee in Kew. Bull. Jun. 1901, p. 94-99, 1 pl. — 1682
Mycelio lanoso, niveo; hyphis sporangiferis decumbentibus racemoso-ramosis, sæpius septatis; sporangiis globosis, atris, 60-100 μ. diam.; columella globosa v. obovata; sporis hyalinis, ellipsoideis, 5-6 × 3,5-4; zygosporis ignotis.

Hab. parasiticus in Locustis (Acridiis?) in Africa australi. — Locustas enecat.

5. **Mucor locusticola** Lindau, Notizbl. Bot. Gart. u. Mus. Berlin Jul. 1683
1901, n. 26, p. 119, t. 1 (absque diagnosi). — Mycelio irregulariter ramoso, filiformi, continuo, hyalino, 4-8 μ. cr.; hyphis fertilibus filiformibus, 250-300 × 6-7, continuis; sporangiis solitarie acrogenis globosis, griseis, 15-23 μ. diam., superficie ob crystalla minutissima asperulis; columella nulla; sporis in quoque sporangio nunc numerosis, nunc paucis, ellipsoideis, subhyalinis, 4-6 × 2,5.

Hab. in Locustis (Acridiis?), quas necat, parasitice, nec non cultus in mediis variis saprophytice, ex Africa australi, ubi ad exterminanda perniciosissima illa insecta adhibetur. — An diversus a præcedente?

6. **Mucor fuscus** Bain. Bull. Soc. Mycol. 1903, p. 165 (absque dia- 1684
gnosi). — Pedicellis 1 cm. longis sub apice 1-septatis ibique iterato ramosis; sporangiis sphæricis, membrana aciculis calcareis facile dilabentibus spinulosa tectis; columella obverse conico-truncata, flavido-brunnea; sporis globosis vel ovoideis, leviter echinulatis, 7,5-12,5 μ. diam.

Hab. in excremento canis in Gallia.

7. **Mucor speciosus** Oud. Beih. Bot. Centr. 1902, p. 6. — Hyphis 1685
sterilibus, repentibus, dichotome ramosis, protoplasmate granuloso farctis, hyalinis continuis; fertilibus erectis vel flexuosis, melleis, sursum sæpe cernuis v. uncinatis, 12-14 μ. cr., simplicibus v. racemoso-ramosis; sporangiis erectis v. cernuis, initio hyalinis, maturis atro-cyaneis, 90-140 μ. diam., subtilissime echinulatis, tunica obtegente hyalina v. dilutissime fuliginea, non diffluente; colu-

mella subglobosa, hyalina v. dilutissime tincta, diu superstite; sporis globosis v. breve ellipticis, singulis, dilutissime fuligineis, acervatis, obscure chalybeis v. atro-cyaneis, 2–4 μ. diam.

Hab. in gelatina ad culturas instituendas in laboratorio bacteriologico adhibita, Delphi Batavorum Hollandiæ.

8. **Mucor mucilaginosus** Bref. Unters. IV, pag. 58 et 184, tab. II, 1686
fig. 9-12, Fisch. Phyc. pag. 190. — Hyphis sporangiferis rectis, subsparsis, indivisis, continuis, hyalinis, superficie tota guttulis aqueis, zona infra sporangiam tantum dempta, conspersis; sporangiis globosis, majusculis, numquam flavis, tandem brunneo-nigricantibus, minute spinulosis, tunica diu permanente, columella campanulato-convexa, intus hyalina nec flava; sporis majusculis, oblongo-ovoideis, 30–33 × 15, levibus, albo-flavidis; zygosporis ignotis.

Hab. in fimo equino in Germania. — Affinis *M. Mucedini*, sed notis allatis distinguendus.

9. **Mucor adventitius** Oud. Contrib. Fl. Myc. des Pays-Bas XVIII, 1687
1902, p. 719. — Maculis orbicularibus; hyphis repentibus ramosis, continuis, erectis 20 mm. alt., simplicibus, continuis, hyalinis; sporangiis globosis 80-95 μ. diam., initio hyalinis, dein griseolis, subtiliter echinulatis, membrana diffluente; columella initio globosa, dein ellipsoidea v. campanulata, hyalina, 40-48 × 48-64, ad basim annulata; sporis ellipsoideis v. oblongis, 8-8,5 × 4,5-5, levibus singulis hyalinis, acervatis griseis; zygosporis non visis.

Hab. in gelatina in loco silvatico exposita in Hollandia — A *M. mucilagineo* Bref. sporulis minoribus differt.

10. **Mucor geophilus** Oud. Fl. Myc. obt. par la culture sur gelatine 1688
etc. in Archives Neerlandaises des Sc. exactes et nat. 1902, p. 278. tab. v. fig. 1-5. — Cæspitibus primo niveis, postea griseolis, denique olivaceis, hyphis repentibus dichotome ramosis, continuis, dilute olivaceis, protoplasmate homogeneo farctis; erectis concoloribus, nunc simplicibus, tunc iterum cymoso-racemosis, ramulis vulgo paucis, 2-3, continuis; sporangiis globosis, primo lutescentibus, denique olivaceis, post diffluxum collarium relinquentibus, 50-350 μ. diam., obtusiuscule muricatis; columella exacte sphærica, magna, dilutissime fuliginea; sporis pluriformibus, globosis, ellipticis, angulosis, 4,2-6,5 μ. diam., dilutissime olivaceis, levissimis; chlamydosporis in mycelii ramis intercalaribus, globosis, protoplasmate granuloso farctis, 20 μ. diam., nunc solitariis, tunc iterum in series aggregatis; zygosporis, ut videtur, chlamydosporis subsimilibus, has volumine paullo superantibus (ca. 30 μ. diam.).

Hab. in gelatina pulvere terræ humosæ infecta, Bassum Hollandiæ.

11. **Mucor reticulatus** Bain. Bull. Soc. Mycol. 1903, p. 164 (absque diagnosi). — Pedicellis circ. 1 cm. longis ramosis prope apicem septatis; sporangiis sordide albis; membrana minute granulata fugacissima; columella ovoidea cylindro-conica vel panduriformi; sporis globosis hyalinis sæpe columellæ conglutinatis. 1689

Hab. in excremento canis, felis et muris in Gallia. — Mensuræ omnes desiderantur.

12. **Mucor platensis** Speg. Rev. Arg. de Hist. Nat. p. (4) — Mycelio albo v. vix subcinerescente late effuso, laxe gossypino-tomentosulo ex hyphis crebre irregulariterque ramulosis cylindricis, 12-15 μ. crassis, hyalinis, guttulis oleosis farctis efformato; ramulis sporangiferis hinc inde densiuscule adsurgentibus, erectis, rectis vel flexuosulis, teretibus 5-30 mm. longis, 10-12 μ. crassis, simplicibus, continuis hyalinis, levibus, apice non incrassatis, sporangium unicum sistentibus; sporangiis globosis, 80-100 μ. diam., inferne non vel vix depressis, ex olivaceo v. fuligineo cæsiis, membrana tenuissima fusco-violascente intus extusque spiculis crystallinis concoloribus minutissimis acutis dense muriculata, mox evanescente vestitis; columella ex ovato subglobosa basi late subtruncato-rotundata v. subumbilicata, 60 × 50 ex hyalino violascente donata; sporis globosis, 8-9 μ. diam, levibus, eguttulatis, hyalinis, dense conglobatis; oosporis non visis. 1690

Hab. in fimo vetusto, putrescente Didelphydis elongati in silva prope La Plata Argentinæ.

13. **Mucor hygrophilus** Oud. Beih. Bot. Centr. 1902, p. 6. — Hyphis sterilibus repentibus niveis, ramosissimis, continuis; hyphis fertilibus simplicissimis, hyalinis, continuis, ad 8 μ. cr., perfecte cylindraceis, summo tantum vix tenuioribus; sporangiis sphæricis 36-42 × 28, membrana primo hyalina, postea vix dilutissime olivacea, levissima, non diffluente; columella infera ovoidea, 32 × 24, levissima, primo hyalina, postremo vix dilutissime viridescente; sporis ellipticis v. ovoideis, 5-8 × 3-6 levissimis, dilutissime virentibus; chlamydosporis numerosissimis, vulgo doliiformibus, dilutissime virescentibus, levibus, membrana minute granulosa farctis. 1691

Hab. in aqua aquæductus urbis Enschede Hollandiæ.

14. **Mucor comatus** Bain. Bull. Soc. Myc. 1903, pag. 156, tab. VI, fig. 6-9 (absque diagnosi). — Hypha primaria apice sporangifera, ramulis binis ascendentibus prope verticem et prope medium 1692

aucta. 500 × 70; sporangiis globosis membrana tenuiter granulata præditis, columella hemisphærica, 90-100 μ. diam, filamentis hyalinis radiantibus prædita; sporis ovoideis, 6-7 × 3-4,5 ex hyalino flavidis.

Hab. in substantiis organicis? in Gallia.

15 **Mucor limpidus?** Bain. Bull. Soc. Myc. 1903, p. 162 (absque diagnosi). — Irregulariter et copiose ramosus; sporangii membrana sublevi; sporis ovoideis perexiguis; columella subsphærica, basi post sporangii dehiscentiam collario prædita; zygosporis majusculis, verrucoso-hirtis, verrucis rufo-ochraceis. 1693

Hab. in substantiis organicis? in Gallia — Mensuræ omnes desiderantur.

16. **Mucor communis** Bain. Bull. Soc. Myc. 1903, pag. 161 (absque diagnosi). — Ex albo ochraceus; sporangiis perexiguis, oligosporis, membrana levi, irregulariter dehiscente; sporis versiformibus globosis, ovoideis, polyhedricis, subhyalinis; columella cylindracea, papillata. 1694

Hab. in substantiis organicis? in Gallia. — Zygosporæ copiosæ, scalariformiter dispositæ, ochraceæ, plano-verrucosæ. Mensuræ omnes desiderantur.

17. **Mucor vulgaris** Bain. Bull. Soc. Mycol. 1903, pag. 160 (absque diagnosi). — Minutus, maculiformis ex albo fulvus, valde ramosus; sporangiis ochraceis ob sporas; membrana hyalina; columella ovoidea vel cylindracea, papillata, dilute cyanea; sporis globosis. 1695

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ minutæ, echinulatæ: zygosporæ verrucis applanatis conspersæ, facile evolvuntur. Mensuræ omnes desiderantur.

18. **Mucor vicinus** Bain. Bull. Soc. Myc. 1903, p. 159 (absque diagnosi). — Mycelio irregulariter ramoso, sporangiis subglobosis, dilute fulvis, tunica levi; sporis e globoso-polyhedricis, subochraceis; columella ovoidea; pedicellis æqualibus, inferne guttulis flavidis oleosis præditis. 1696

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ adsunt et azygosporæ facile evolvuntur. Mensuræ omnes desiderantur.

19. **Mucor prolificus** Bain. Bull. Soc. Mycol. 1903, p. 163 (absque diagnosi). — Sporangiis flavo-ochraceis, polysporis, membrana levi hyalina; sporis vulgo ovoideis, majusculis, flavidis; columella cylindracea, papillata, basi abrupte dilatata. 1697

Hab. in substantiis organicis; in Gallia. — Zygosporæ serius

atro verrucoso-echinulatæ. Chlamydosporæ leves, flavidæ. Mensuræ omnes desiderantur.

20. **Mucor neglectus** Bain. Bull. Soc. Mycol. 1903, pag. 160 (absque diagnosi). — Sporangiis ob sporas ovoideas flavidas ochraceis; columella ovoidea vel medio-subconstricta vel piriformi; membrana sporangii minute granulosa, dein evanescente et collarium relinquente. 1698

Hab. in substantiis organicis? in Gallia. — Chlamydosporæ leves et ochraceæ adsunt et azygosporæ facile evolvuntur. Affinis *M. tenui* et *M. vicino*. Mensuræ omnes desiderantur.

21. **Mucor Ramannianus** A. Möll. Zeitschr. f. Forst u Jagdwesen 1903, Heft V–VI. — Mycelio niveo copiose ramoso, extus filiformi gemmifero; gemmis conidiomorphis; hyphis fertilibus rectis, vix 1 mm. longis, sæpius brevioribus, solitariis v. umbellato-fasciculatis, simplicibus, 10-20 μ. infra sporangium septo divisis; sporangiis cupreis, coacervatis læte roseis, globosis, 20–40 μ. diam., columella globosa 7-9 μ. diam., membrana omnino fragili; sporis globoso-oblongis, 2,5 × 1,7, hyalinis; zygosporis nullis observatis. 1699

Hab. in pane, ubi cæspitulos depressos, roseos radiatim expansos format, ex mycorrhizis Pinorum in Bavaria et Germania. — In fimo non evolvitur.

22. **Mucor Wossnessenskii** Schostak. in Zeitschr. f. angew. Mikroskop., 1903, p. 5. — Hyphis simplicibus v. sympodiali-ramosis 1-2 mm. alt., 100 μ. cr.; sporangiis globosis, atro-griseis; membrana fragili et collario basali præditis; columella piriformi 350 μ. longa; sporis ovoideo-oblongis, 6-8 × 5. 1700

Hab. in caryopsidibus Oryzæ coctis, in Rossia. — Subinde sporangia sterilia manent et tunc lateraliter generant sporangiophora sporangiis minoribus prædita.

ACTINOMUCOR Schostak. in Zeitschr. f. angew. Mikroscop. 1903, p. 35 (Etym. *actin* radius et Mucor). — Hyphæ stoloniferæ, stolonibus apice inflatis et 4–5 ramos verticillatos edentibus subindeque ramos secundi ordinis proferentibus. Rami conidiophori circiter decem verticillati. Sporangia lateralia minora, altitudine sporangium centrale majus subæquantia et cingentia.

1. **Actinomucor repens** Scholastak. l. c. — Characteres generis. 1701

Hab. in substantiis organicis in Rossia.

ZYGORRHYNCHUS Vuill. in Bull. Soc. Mycol. 1903, p. 116 (Etym. *zygon* jugum et *rhynchos* rostrum). — Hyphæ continuæ, ramosæ, inæquales sæpe nodosæ, immersæ, repentes vel stratum aëreum velutinum formantes. Chlamydosporæ leves, intercalares vel terminales. Pedicelli solitarii vel in systemata sympodica irregularia sporocystas typicas vel abortivas zygosporasque ferentia aggregati, apice non infundibuliformes. Sporocystæ uniformes, membrana cum basi columellæ plus minus concrescente præditæ. Sporæ numerosæ, minutæ, leves. Zygosporæ valde aculeatæ, rostratæ. Tympana insertionis subopposita, inæqualia, minus in apice rostri. Suspensores inæquales et difformes, minor rectus et brevis, major longus, curvus apice piriformi-inflatus. Gameta valde inæqualia; zygosporæ e systemate simili sporocystarum oriuntur.

1. **Zygorrhynchus heterogamus** Vuill. l. c. *Mucor heterogamus* Vuill. — Sacc. Syll. IX, p. 336.

2. **Zygorrhynchus Moelleri** Vuill. Bull. Soc. Mycol. 1903, p. 117. — 1702
A *L. heterogamo* differt sporis ellipsoideis, 4,3 × 2,6, nec globosis zygosporisque duplo triplove majoribus.

Hab. in substantiis organicis, Eberswalde Germaniæ (Moeller).

PROABSIDIA Vuill. in Bull. Soc. Mycol. 1903, p. 116 (Etym. *pro* et *Absidia*, ob affinitatem cum hoc genere). — Hyphæ ramosæ inæquales, sæpe nodosæ. Chlamydosporæ leves intercalares. Pedicelli solitarii ex hyphis directe nascentes, apice infundibuliformes. Sporocystæ uniformes, globulosæ, membrana levi diffluenti præditæ, collarium angustum relinquentes. Columella hemisphærica vel obconica sæpe papillata. Sporæ numerosæ minutæ leves. Zygosporæ verrucosæ. Tympana insertionis æqualia, opposita; suspensores recti infundibuliformes fulcris circinatis, tympana cingentibus præditi.

1. **Proabsidia Saccardoi** (Oud.) Vuill. loc. cit. *Mucor Saccardoi* Oud. 1703
Fl Myc. obt. par la culture sur gelatine etc. in Archives Neerlandaises des Sc. exactes et nat. 1902, p. 278, tab. VI, fig. 1-6. — Cæspitibus fructiferis dilutissime violaceis; hyphis repentibus dichotome ramosis, continuis, liquore dilutissime violaceo repletis; erectis indivisis, altis 25 mm., nunc æqualiter, tunc iterum partim tantum coloratis, septo angusto, permanente, immutabili, 12-24 μ. infra apicem expanso præditis, singulis in sporangium unicum abeuntibus; sporangiis apophysatis itaque partem tantum expansionis sphæricæ terminalis occupantibus, columellam superam he-

mispharicam v. paullo voluminosiorem, imo semiellipticam, summo passim mucronatam occultantibus, 36-42 μ. diam., levissimis, primo dilutissime violaceis, postea griseolis, postremo fuscescentibus, tunica fluxili, inermi, hyalina, tandem collare angustum ad columellæ basim relinquentibus; columellæ tunica hyalina, liquore granuloso, vulgo guttulis farcto, repleta; sporis globosis, durante optimo vigore dilutissime violaceis, 4-7 μ. diam.; chlamydosporis in mycelii ramis intercalaribus, ellipticis, levibus, protoplasmate granuloso farctis; zygosporis globulosis, maturis 60 μ. diam., fuscis, rugoso-verruculosis, suspensoribus p. m. cyathiformibus, pedunculatis, ex margine partis anterioris dilatatæ fila fusca 10-20 numero, longissima 7 μ. maxime lata, sursum clavata vel uncinata, tandemque inter se congredientia et intertexta emittentibus.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ.

PARASITELLA Bain. Bull. Soc. Mycol. Fr. 1903, pag. 153 (Etym. *parasitus*). — Sporangia solitaria perexigua horizontaliter ovoidea, applanata, pleiospora, membrana tenuiter granulosa; columella ovoidea; pedicelli sporangiferi simplices, breves, sursum attenuati, ex hyphis mycelialibus filiformibus, irregulariter ramosis et hinc inde massulis globosis vel subdigitatis præditis oriundi.

1. **Parasitella simplex** Bain. Bull. Soc. Myc. Fr. 1903, p. 153, t. VI, 1704
fig. 4-5 (absque diagnosi). — Perexigua, oculo inermi vix visibilis; mycelii tuberositatibus prædistincta; sporis ovoideis; cetera generis.

Hab. parasitica in Mucoribus quibusdam in Gallia. — Dimensiones nullæ allatæ. — Sub nom. *Mucoris parasitici* exhibuit sed non descripsit olim hanc speciem; hinc novum nomen *Parasitella parasitica* (Bain.) Syd. Ann. myc. I, p. 371 non necessarium videtur.

CIRCINELLA Van Tiegh. — Syll. VII p. 215.

1. **Circinella nigra** Bain. Bull. Soc. Myc. 1903, pag. 170, tab. VII, 1705
f 6-9 (absque diagnosi). — Sporangiis dispositis ut in *Circinella spinosa*, atro-cœruleis, globosis, 45-50 μ. diam., membrana aciculis calcareis hirsuta; sporis globosis, subcyaneis, 2-5 μ. diam.; columella azureo-atra, spinulosa; hyphis 7,5 μ. diam., flavo-ochraceis.

Hab. in fimo equino exsiccato, in Gallia. — Zygosporæ leves, atro-violaceæ.

RHIZOPUS Ehrenb. — Syll. VII p. 212, XI p. 240, XIV p. 435, XVI p. 385.

1. **Rhizopus apiculatus** Mc. Alp. Fungus diseas. of Stone-fruit-trees. 1706
Melb. 1902, p. 96, tab. XXII, et XXIII fig. 62-64. — Hyphis sporangiferis erectis, generaliter 3-fasciculatis, simplicibus, castaneis, 2 mm. long. et 26 μ. crassis e stolonibus concoloribus oriundis; sporangiis globosis, tunica levi, fuligineis, 150-160 μ. diam.; sporis pallide fuligineis, subglobosis vel ovalibus, levibus, granulosis, 7-8 μ. diam. vel 8-11 × 6,5-7,5.

Hab. in foliis emortuis Pruni domesticæ et Pruni Armeniacæ, Ardmona, Victoria Australiæ.

2. **Rhizopus umbellatus** Annie L. Smith, in Journ. R. Micr. Soc. 1901. 1707
pag. 618, tab. XIII, f. 5. — Hyphis e stolonibus exsurgentibus 8-10 μ. diam., hyalinis, sporangiferis, 500 μ. longis, superne umbellato-ramosis, hyalinis; ramis fere semper quaternis, interdum septatis, in sporangia subglobosa 50-60 μ. diam. terminantibus, hyalinis columella globosa 30 μ. diam.; sporis oblongis, utrinque attenuatis 5 × 2, hyalinis.

Hab. in seminibus Trifolii rubri germinantibus in Britannia. 1708

3. **Rhizopus schizans** Mc. Alp. Fungus diseas. Stone-fruit-trees, Melb. 1902, p. 84, t. XV, f. 1-2. — Hyphis sterilibus repentibus, mycelia intricata efformantibus, tenuibus, hyalinis, septatis, ramosis; hyphis fertilibus fasciculatis, simplicibus, raro ramosis et 1-septatis, luteo brunneo-pallidis, circ. 1 mm. long. et 17 μ. cr. e stolonibus concoloribus oriundis; sporangiis globosis, nigro-brunneis, tunica levi, 150 μ. diam., columella elliptica, 70 × 52; sporis in cumulo nigro-brunneis, separatim pallidis, ellipticis v. ovalibus, 7-7,5 × 5-5,5.

Hab. in fructibus ruptis Pruni Persicæ, Ardmona, Victoria Australiæ.

4. **Rhizopus equinus** Cost. et Lucet in Bull. Soc. Myc. de France, 1903, 1709
p. 211, tab. IX et X. — Pedicellis initio subsolitariis, plerumque rhizoidibus carentibus, rectis curvulisve, tandem fasciculatis et rhizoidibus præditis, tunica pallide ochracea; columella pallida, globoso-emisphærica; sporis globosis interdum subangulosis, levibus 4 μ. diam.

Hab. in corpore Equi Caballi in Gallia. — Species Cuniculo pathogena. Adsunt chlamydosporæ. Confer fusiorem descriptionem et Conspectum specierum l. c.

5. **Rhizopus tonkinensis** Vuill. Rev. Mycol. 1902, pag. 53, tab. 225 1710
(absque diagnosi). — Hyphis sterilibus repentibus hinc inde rhi-

zoidibus brevibus flexuosis præditis; hyphis fertilibus assurgentibus apice infundibulariter dilatatis et cum columella globosa contiguis; sporangiis globosis, 75-100 μ. diam.; sporis sphæroideo-ellipsoideis, uno apice acutiusculis (avellaniformibus), 8 × 5,5-6,5, exosporio nigro-cyaneo, eximie striato.

Hab. in caryopsidibus Oryzæ fermentescentibus (*ragi*) ex Tonkin Indosinarum.

6. **Rhizopus japonicus** Vuillem. Revue mycol. 1902, p. 49, tab. 224, 1771
f. 11-14 (absque diagnosi). — Hyphis sterilibus hinc inde rhizoidibus copiose ramulosis præditis ibique fasciculos hypharum fertilium assurgentium gerentibus; hyphis fertilibus apice infundibulariter dilatatis et cum columella globulosa contiguis; sporangiis sphæroideis 160-215 μ. diam.; sporis sphæroideo-ellipsoideis, uno apice acutioribus (avellaniformibus), 9-12 × 6-7, exosporio nigro-cyaneo distincte striato.

Hab. in caryopsidibus Oryzæ fermentescentibus (*ragi*) e Japonia.

7. **Rhizopus Cambodja** (Chrzaszcz) Vuill. Rev. Myc. 1902, p. 48, *Mucor* 1772
Cambodja Chrzaszcz in Centralbl. f. Bakter. II Abt. 1901, p. 326-338, 2 tab. — Mycelio albo dein griseo-cærulescente, 10-20 mm. longo, stolonibus e mycelio surgentibus, 3-14 μ. diam. et 120 μ. usque ad 8 mm. long., contentu subflavido; rhizinis vulgo parce ramosis hyalinis dein brunneis, 3-7 μ. crass. subinde septatis; hyphis fertilibus, 100-1000 × 7,2-14, rectis vel curvis, brunneis, vulgo simplicibus rarius ramulosis. sporangiis globosis, 50-100 μ. diam. griseis vel brunneolis, maturis cæruleo-nigris, membrana valde fragili, columella 22-44 × 25-44 hemisphærica vel globosa; membrana levi brunnea; sporis cærulescentibus, levibus, oblongis vel globoso-angulosis, 4,5-7,5 × 3,7-5,2; zygosporis nullis visis.

Hab. in fermento oryzino quodam sinensi e Cambodja Asiæ.

8. **Rhizopus sinensis** Saito in Centralbl. f. Bakt. II Abth., XIII 1773
(1904), p. 153, t. I. — Hyphis sterilibus repentibus hyalinis hinc inde rhizinas plus minus longas subinde verruciformes fasciculatas v. sparsas emittentibus, superne hyphas sporangiferas 200-250 μ. altas edentibus; hyphis fertilibus filiformibus griseis simplicibus, interdum sursum bifidis subverticillato-ramosis, apice parum dilatatis; sporangiis globosis, 60-80 μ. diam., nigricantibus, columella varia, plerumque ellipsoidea, 30-40 μ. cr.; sporis e sphærico ellipsoideis levibus intus guttulato-granulosis, 10 × 8 v. 5-7 μ. diam., griseo-nigricantibus.

Hab. in pane triticeo ex urbe Shao-Hing in prov. Che-Kiang Sinarum. — Cæspituli griseo-nigricantes subinde 2-3 cm. alt. Zygosporæ nullæ observatæ.

9. **Rhizopus Tritici** Saito in Centralbl. f. Bakt. II Abth. XIII (1904) 1714
p. 157, t. II. — Hyphis sterilibus repentibus, filiformibus, parce ramosis, hinc inde rhizinas fasciculatas, simplices vel apice varie ramulosas emittentibus, superne hyphas fertiles edentibus; hyphis fertilibus, 500-1000 × 10, filiformibus, brunneis, rectis vel curvulis, simplicibus vel sursum iterato-ramosis, apice vix dilatatis; sporangiis globosis initio niveis, dein atro-brunneis, 85-200 μ. diam., membrana fragili crystallis perexiguis acicularibus conspersa; columella 9-11 × 7-8, sphærico-ellipsoidea; sporis globoso-ovoideis, æqualibus 5-6 μ. diam., coacervatis nigro-griseis vel atro-brunneis, membrana crassiuscula, longitudinaliter striata; zygosporis nullis visis.

Hab. in pane triticeo ex urbe Shao-Hing, in prov. Che-Kiang Sinarum. — Cæspituli nivei dein griseo-nigricantes, 2-5 cm. alt.

TIEGHEMELLA Berl. et De Toni — Syll. VII p. 215.

1. **Tieghemella Orchidis** Vuill. in Bull. Soc. Mycol. 1903. pag. 122. 1715
tab. 5. — Hypha primaria seu stolone 0,6-10 mm. longo, rhizoidibus basi prædita; ramis fertilibus simplicibus v. ramulo obliquo sursum auctis, 500-700 × 7-10, apice 1-septatis, sursum infundibuliformibus, sporocystibus cum infundibulo continuis, 40 × 32, membrana granulis perexiguis incrustata, collarium angustum, fimbriatum, basi relinquente; sporis sphæricis, 2-5 × 3-5 μ. diam. brunneolis; columella conica apice papillata.

Hab. in radicibus Orchidis masculæ diu in vasculo asservatis, ex silvis Nancy Galliæ. — Huic generi adscribenda est *Tieghemella dubia* (Bainier) Vuill. l. c. Absidia dubia Bainier — Syll. XI, p. 240 — quam nunc cl. Bainier in gen. nov. *Pseudoabsidiam* erexit. Cfr. Bull. Soc. mycol. 1903, p. 153, t. VII.

ABSIDIA Van Tiegh — Syll. VII p 214, IX p. 337, XI p. 240, XIV p. 435, XVI p. 386.

1. **Absidia scabra** Cocconi, Ricerche int. una nuova Mucorinea, in 1716
Memor. R. Accad. Sc. Bologna ser. V, Tom. VIII, pag. 80 con tav — Hyphis sterilibus repentibus in arcus fere semicirculares æquales plurimos elevatis, continuis, rhizinis fasciculatis basi au-

ctis; ramis sporangiferis e medio arcuum 3-5 assurgentibus, simplicibus; sporangiis ovoideis v. piriformibus, membrana levi; columella conoidea; sporis globulosis, hyalinis, 4,5-6 μ. diam, membrana spinulosa; zygosporis breve ovoideis v. subsphæroideis, 78-86 μ. diam, nigricantibus, filamentis uncinatis obvolutis et germinando hypham sporangiferam simplicem ramosamve generantibus.

Hab. in fimo equino, Bologna Ital. bor. — Azygosporæ notæ.

SPORODINIA Link. — Syll. VII p. 206.

1. **Sporodinia argentinensis** Speg. Myc. argent. ser. II, 1902, p. 67. 1717
— Cæspitulis tenerrimis, fugacissimis subcinerescentibus, 5-10 mm. alt.; ramis erectis, laxe articulatis, cylindraceis, internodiis gracilibus, 500-1000 × 10-12, hyalinis; sporangiis globosis chlorinis, 30-50 μ. diam., mox diffluentibus, columellam globosam 15-25 μ. d., liberantibus; sporis levibus, utrinque obtusis, 4-6 × 3-4, tenuissime tunicatis, eguttulatis, hyalinis.

Hab. in lignis quibusdam diu in receptaculo humido servatis, La Plata, in Argentina.

HELICOSTYLUM Corda — Syll. VII p, 209, XIV p. 434.

1. **Helicostylum intermedium** Morini, Rendic. d. R. Accad. d. Scienze 1718
Bologna, 1902, p. 81-88 c. tabula (absque diagnosi). — Cæspitulosum, albidum; cæspitulis $^1/_3$ mm. diam. ex hyphis laxis compositis; hypha primaria 0,7-1,3 mm. alta, 22-28 μ. cr., erecta, continua supra medium ramosa, parte suprema hyphæ ramorumque attenuata et sterili; ramis prope medium ramulosis, ramulis arcte spiraliter contortis, apice sporangiophoris; sporangiis globosis, columella destitutis, 26-30 μ. diam., hyalinis, spinulis calcareis perexiguis conspersis; sporis paucis (5-18) ovoideis, levibus, e flavido hyalinis, ex icone circ. 8-9 × 6-6,5.

Hab. in fimo bovino, Bologna Ital. bor., socio *Pilobolo*.

PILOBOLUS Tode — Syll. VII p. 184.

1. **Pilobolus Morinii** Sacc. *Piloboli* sp. Mor. in Mem. R. Accad. delle 1719
Scienze di Bologna ser. V, tom. VIII, 1899-1900, p. 85. c. tab. — Videtur affinis *P. nano* van Tiegh., a quo differt hyphis sporangiophoris basi non 2-5 coalitis; sporis globosis minutis 4,5-6 μ. diam., aurantiacis, nec incoloribus.

Hab. in stercore humano sicco, Montese in agro Bononiensi.

— Totus fungillus 0,6–0,8 mm. alt. Sporangia nigra; hypha sporangiophora alba cum vesica sup. alba.

2. **Pilobolus pullus** Massee in Kew Bull. 1901, p. 160. — Sporangiis 1720
hemisphærico-depressis, atris, glabris 250-300 μ. latis; columella convexa, sæpe medio constricta; sporis ellipticis, episporio aurantiaco, 10-12 = 8-9; stipite albido, apice ventricoso-inflato, 1 millim. alto.

Hab. in fimo vaccino, in Tasmania (Rodway). — *P. Kleinii* van Tiegh. affinis.

MORTIERELLA Coemans. — Syll. VII p. 220, IX p. 337, XI p. 240, XVI p. 387.

1. **Mortierella humicola** Oud. Fl. Myc. obt. par la culture sur gela- 1721
tine etc. in Archives Neerlandaises des Sciences exactes et natur. 1902, pag. 276, tab. I, fig. 1–3. — Cæspitibus orbicularibus, non lamellosis, constanter niveis; hyphis repentibus dichotome ramosis, hyalinis, continuis, passim nodulosis, protoplasmate pauci-granuloso repletis; erectis perfecte cylindraceis, neque deorsum crassioribus, nec sursum attenuatis, protoplasmate grosse vacuoloso farctis, 110-150 μ. altis, singulis in sporangium unicum abeuntibus; sporangiis globosis, 20 μ. diam., levissimis, membrana hyalina; sporis perfecte globosis, levissimis, 3 μ. diam., hyalinis, absque omni nuclei v. guttulæ vestigio.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ.

2. **Mortierella isabellina** Oud. Fl. Myc. obt. par la culture sur gela- 1722
tine etc. in Archives Neerlandaises des Sc. exactes et natur. 1902, p. 276, tab. II, f. 1-6. — Cæspitibus zonatis, primo niveis, mox autem læte griseis, denique isabellinis tactuque justo durioribus; hyphis repentibus dichotome ramosis, continuis, protoplasmate æquali farctis; erectis cylindraceis, sursum vix tenuioribus, continuis, 120-200 μ. altis, hyalinis, in sporangium unicum abeuntibus; sporangiis globosis, 12-25 μ. diam., levissimis, membrana hyalina; sporis globosis, levissimis, singulis fere hyalinis, aggregatis, dilutissime ochroleucis, 2–5 μ. diam.; chlamydosporis in gelatina submersis, sphæricis v. ellipticis, levibus, hyalinis, membrana tenui instructis.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ. — A *M. simplici* Van Tiegh. et Le Mon., colore cæ-

spitum optime vigentium, colore et dimensione minore sporarum differt.

3. **Mortierella pusilla** Oud. Fl. Myc. obt. par la culture sur gela- 1723
tine etc. in Archives Neerlandaises des Sc. exactes et natur. 1902, p. 277, tab. III, fig. 1-2. — Cæspitibus orbicularibus, constanter niveis, lanosis, e laminis paucis superpositis, repandis vel lobatis et quoad amplitudinem sursum diminuentibus compositis; hyphis repentibus, hyalinis, 2,5-10 μ. cr., dichotome ramosis, protoplasmate subtilissime granuloso dense repletis; erectis 4–6 μ. cr., deorsum paullo crassioribus, sursum lenissime attenuatis, 130–170 μ. altis, sporangio unico terminatis; sporangiis globosis, levissimis, 24–28 μ. diam., membrana hyalina; sporis perfecte globosis, levissimis, hyalinis, 2–2,5 μ. diam. absque omni nuclei aut vesiculæ vestigio.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ. — A *M. isabellina* Oud. differt cæspitum fabrica lamellosa et colore constanter niveo; hyphis repentibus protoplasmate dense et minute granuloso repletis; hyphis erectis sursum attenuatis, deorsum paullo incrassatis; sporis hyalinis.

4. **Mortierella subtilissima** Oud. Fl. Myc. obt. par la culture sur ge- 1724
latine etc. in Archives Neerlandaises des Sc. exactes et nat. 1902, p. 277, tab. IV, fig. 1–3. — Cæspitibus *M. pusillæ* simillimis; hyphis repentibus hyalinis, continuis, ramosis, 3-5 μ. crass., protoplasmate homogeneo farctis; erectis strictis, continuis, hyalinis, 130–200 μ. altis, 2,5-3,5 μ. cr., simplicibus, cylindricis, deorsum non incrassatis, sursum vix attenuatis, singulis sporangio unico terminatis; sporangiis globosis, levissimis, 20-26 μ. diam., membrana hyalina; sporis levissimis, hyalinis, globosis, 2,3–4,7 μ. d., cum ellipticis 5-6 × 4–5 commixtis.

Hab. in gelatina pulvere terræ humosæ infecta, Bussum Hollandiæ. — A *M. pusilla* Oud. differt hyphis repentibus protoplasmate homogeneo nec granuloso farctis; erectis tenuioribus (2,3–3,5 μ. contra 5), per totam longitudinem fere æque crassis; sporangiis minoribus (20-26 μ. contra 24–28); sporis globulosis minoribus cum aliis, ellipticis, majoribus commixtis, neque omnibus æqualibus. An forma *M. pusillæ?*

CHOANOPHORA Cunn. — Syll. IX p. 339, XIV p. 432, XVI p. 383.

1. **Choanophora Cucurbitarum** (B. et R.) Thaxter, Rhodora 1903, p. 99,

tab. XLVI. Ita vocandus est *Rhopalomyces Cucurbitarum* B. et R. — Syll. IV, p. 50 — teste cl. Thaxter.

CUNNINGHAMELLA Matr. in Ann. Mycol. 1903, pag. 46, absque diagnosi (Etym. a cl. botanico britannico-indico D. D. Cunningham). — Mycelium continuum, ceterum genus omnino mucedineum et zygosporis carens. Hyphæ fertiles superne inflatæ in vesiculam ubique sterigmatophoram. Sporæ (conidia?) globulosæ, distincte spinulosæ in apice sterigmatum solitarie acrogenæ. — *Œdocephalo* et *Choanophoræ* affinis *).

1. **Cunninghamella africana** Matr. in Ann. Mycol. 1903, pag. 47. — 1725
Omnino alba; mycelio et hyphis continuis; hyphis sporiferis apice capitato-inflatis; capitulis usque 100 μ diam., globulosis; conidiis globoso-ellipsoideis, 18 × 12, pedicellatis, dense muricato-spinulosis.

Hab. in stercore Camelorum in Soudan gallico Africæ, nec non culta in laboratorio. — Diagnosis systematica, more solito biologorum, omnino desideratur. Teste cl. R. Thaxter in Rhodora 1903, p. 98, huc spectat *Œdocephalum echinulatum* Thaxter 1891 Syll., quod ergo vocandum est *Cunning. echinulata* Thaxter.

PIPTOCEPHALIS De Bary — Syll. VII p. 225, IX p. 338, XI p. 241, XVI p. 387.

1. **Piptocephalis Le-Monnieriana** Vuill. Les Céphalidées (in Bull. Soc. 1726
Sc. Nancy, 1902), p. 28, pl. IV, f. 57-74 (absque diagnosi). — Filamentis fertilibus rhizoidibus nullis matrici hærentibus, erectis, 500 μ. alt., 9 μ. cr. sursum in corymbum umbellatum desinentibus, continuis; corymbo fructifero ex albo-castaneo, e ramis dichotomicis patulis, apice inflato sporigeris ibique 6,5 μ. cr., tuberculatis; sporocystibus radiato-capitatis, breve cylindraceis, 7-8 × 1, 7-2; sporis in quaque sporocysti binis, ellipsoideis.

Hab. in cæspitibus Mucoris fragilis pr. Epinal Galliæ.

SYNCEPHALIS Van Tiegh. et Le Monn. — Syll. XIV p. 435.

1. **Syncephalis aurantiaca** Vuill. Les Céphalidées, Nancy 1902 (in 1727

*) Teste Auctore, *Œdocephalum albidum* Sacc. ad hoc genus quoque pertinet (*Cunninghamella alb da* (Sacc.) Matr. Et *Gonatobotrys macrospora* Riv., sec. eumdem Matruchot ad genus affine referenda esset nomine *Plachtflorella microspora* (Riv.) Matr. Sed cum in duobus his fungorum generibus sporangia non distincta sint, res videtur ulterius inquirenda.

Bull. mens. Soc. Scienc. Nancy 1902 p. 17 pl. I, f. 13-21, pl. II. fig. 36-43 (absque diagnosi). — Amœne aurantiaca, effusa; filamentis sterilibus, tenuissimis, anastomotico-ramosis. hinc inde subtriangulariter inflatis, continuis; fertilibus erectis basi rhizoidibus inæqualibus cinctis ibique parce septulatis, tereti-obclavatis, 200-270 µ. long. apice inflatulis 30 µ. cr.; sporocystibus fasciculato-capitatis, cylindraceis, 60 µ. long., 3-4-articulatis ex articulo sterili versiformi oriundis; sporis tereti-ellipsoideis, utrinque rotundatis, 6-9 = 3,5-4.

Hab. in excremento Vulpis, Malzéville Galliæ.

2. **Syncephalis adunca** Vuill. Ann. Mycol. 1903, p. 423, tab. VIII, f. 11-19 (absque diagnosi). — Tota 95-125 µ. alta; hypha verticali, cylindrica, 6-6,5 µ. cr., sursum arcte recurvata et incrassata ibique 8-20 µ. lata; vesicula apicali hemisphærica, 23-27 µ. diam.; baculis sporogenis supra vesiculam parallele stipatis, 4-sporis; sporis oblongo-cylindraceis, 3,5 µ. long., supreme cum indusio terminali 7 µ. long. 1728

Hab. in superficie aquæ cum fimo equino, sociis aliis Mucoraceis, culta in laboratorio botanico, Nancy Galliæ. — Affinis *S. curvatæ*.

3. **Syncephalis glabra** Morini, Contr. gen. Syncph. in Mem. R. Accad. Bologna Ser. V, t. IX, pag 233 tab. — Flavo-aurantiaca; hyphis conidiophoris levissimis simplicibus basi incrassatis et rhizinis fasciculatis præditis, continuis, 60-85 µ. longis, apice in vesiculam globosam inflatis, crystalloidibus carentibus, serius incurvato-nutantibus; basidiis e vesicula orientibus, brevibus, catenulam unicam conidiorum globosorum levium gerentibus; zygosporis globulosis, levibus, membrana crassa, nigricante. 1729

Hab. in Boleto eduli, B. Satana etc. fere putrescentibus pr. Bologna Ital. bor. — Mensuræ sporarum et zygosporarum omnes desiderantur.

GLOMERULA Bainier in Bull. Soc. Mycol. 1903, p. 154 (Etym. *glomus*). — Hyphæ fertiles vertice sporangiferæ, apicem versus ramulis 3-8-verticillatis breve ramulosis apice quoque sporangiferis præditæ Sporangia sphæroidea, hyalina dein ochracea, membrana spinulis calcareis dense conspersa, maturitate diffluente et collarium angustum relinquente; sporæ globosæ leves; columella varia hemisphærica, cylindro-conica vel ovoidea.

1. **Glomerula repens** Bainier in Bull. Soc. Mycol. 1903, p. 154, t. VI, 1730
fig. 1-3 (absque diagnosi). — Characteres generis.

Hab. in substantiis putrescentibus in Gallia. — Dimensiones nullæ allatæ.

SPINALIA Vuillemin in Bull. Soc. Myc. de France 1904, pag. 26-33 (Etym. ab urbe Epinal, ubi fungus primitus lectus). — Hyphæ continuæ, (subinde hyphæ exhaustæ septatæ ad cicatrices); hypha fertilis longissima, repens v. scandens, in pedicellum erecta; rami laterales rariores et serotini pedicellos secundarios edentes. Vesicula apicalis globosa, basidiis sporomorphis radiantibus obsita. Sporangia (conidia?) solitaria in apice basidiorum, ellipsoidea, continua. — Membrana sporangiis nulla manifesta, hinc technice fungillus videtur potius mucedineus, forte *Œdocephalo* affinis.

1. **Spinalia radians** Vuillemin, l. c. p. 32, tab. II. — Characteres 1731
generis. Fungus totus flavicans, 2-2,5 mm. long.; vesicula sporifera globosa 4–30 µ. diam.; basidiis sporangiisque (?) subisomorphis oblongo-ellipsoideis, utrinque rotundatis, 4 5-6,7 × 1,7-3, plasmate granuloso farctis.

Hab. in fluxu trunci Betulæ, sociis *Mucore fragili* et *Piptocephali Le-Monnieriana,* Epinal Galliæ.

Fam. 2. **Entomophthoraceæ** Now.

ENTOMOPHTHORA Fres. — Syll. VII p. 282, IX p. 351, XIV p. 437, XVI p. 388.

1. **Entomophthora Lauxaniæ** Bubák, Hedw. 1903, p. (100). — Sporis 1732
perdurantibus in tota cavitate corporis generatis; mycelio brevi sacciformi, contorto, partim vesiculoso, continuo v. hinc inde septato, 7-20 µ. cr., hyalino, copiose guttulato; sporis perdurantibus (azygosporis) globosis, in mycelio acro-pleurogenis, 25-50 µ. diam., dilute flavidis, exosporio inæqualiter vittato-verruculoso, endosporio hyalino, guttula centrali majuscula, sporæ diametrum dimidium et ultra superante.

Hab. in musca Lauxania ænea sub foliis Crepidis paludosæ et Spirææ opulifoliæ in Bohemia. — Conidia nondum cognita. Exosporium jodo dilute brunneum, endosporium castaneum fit.

2. **Entomophthora Pooreana** A. L. Smith in Trans. Brith. Myc. Soc. 1733
1900, p. 150. — Hyphis copiosis, intertextis, in processus breves partitis, 5 μ. cr. v. amplius, septatis; sporis perdurantibus in hyphis anastomosantibus intercalari modo formatis, subglobosis, 25–40 μ. diam., membrana crassa, contentu granuloso.

Hab. in cuniculo putri exhumato, Isleworth Britanniæ.

3. **Entomophthora dissolvens** Vosseler, Ueber einige Insectenpilze 1734
(Jahreshefte des Vereins für Vaterländ. Naturkunde in Württemberg, 1902, p. 380–388, tab. VIII, f. 5-7 (absque diagnosi). — Mycelio filiformi, flavo; sporis perdurantibus in latere hypharum septatarum mycelii evolutis, globosis, primo pallidis dein atro-brunneis, 35-40 μ. diam., episporio ca. 2 μ. crasso, subverrucoso; basidiis non visis.

Hab. in chrysalide Cerastis? satellitiæ, Teuerbacher Heide pr. Stuttgart Germaniæ.

Fam. 3. Chytridiaceæ De Bary et Wor. *).

OLPIDIUM A. Braun. — Syll. VII p. 310, IX p. 361, XI p. 246, XIV p. 438, XVI p. 389.

1. **Olpidium intermedium** Costantineanu, Rev. gén. de Bot. 1901, 1735
f. XIII, p. 71, fig. 1. — Zoosporangiis 5-20 in singulo ovo, congestis, sphæricis vel suboblongis, 20-30 μ. diam. vel 30 × 33, in collum longum 108-114 × 6-8 desinentibus; zoosporis non visis.

Hab. in ovis Rotiferorum, Jassy in Romania.

OLPIDIOPSIS Cornu — Syll. VII p. 299, IX p. 362, XI pag. 247, XIV p. 439.

1. **Olpidiopsis? irregularis** Costantineanu, Contrib. Mycol. Roumanie, 1736
p. 5, f. 2-3 (in Rev. génér. Bot. 1901). — Zoosporangiis in filamentis parum dilatatis Saprolegniæ ortis, irregulariter oblongis sinuosisque, orificio minuto pertusis; plasmate granuloso dein in zoosporas globulosas, 4,5–5 μ. diam. biciliatas abeunte.

Hab. in filamentis myceliaribus Saprolegniæ sp. Jassy et Cristesti Romaniæ. — Dubia species ex ipso auctore.

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*) Cfr. Ludi Rud. Beiträge zur Kennt. der Chytridiaceen. Dresd. 1901 (Hedwigia).

RHIZOPHIDIUM Schenk — Syll. VII p. 298, IX p. 362, XI p. 248, XIV p. 443, XVI p. 390.

1737 1. **Rhizophidium fungicolum** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, p 149, fig. 2. — Sporangiis numerosis in mycelio *Glœosporii* ad fructum *Theobromæ* evolutis, obpiriformibus, 40 × 30-40, apice conspicue papillatis; zoosporis globulosis, 4 μ. diam., uniciliatis, 2-3, oleoso-guttulatis ex sporangii papilla exeuntibus.

Hab. in mycelio Glœosporii ad fructum Theobromæ Cacao in Java.

1738 2. **Rhizophidium Costantineani** Sacc., *R. Vaucheriæ* Cost. Rev. gén. Bot. 1901 et Rev. Mycol. 1903, p. 38, nec De Wild. 1900. — Syll. XVI, p. 390. — Mycelio intramatricali, tenui, ramoso; zoosporangiis sparsis v. aggregatis, sessilibus, sphæricis v. subsphæricis, minutis, 6-8 μ. diam.; zoosporis paucis (4-6), globulosis 1-guttulatis, 3,5 μ. diam., 1-ciliatis.

Hab. ad filamenta Vaucheriæ, Jassy in Romania. — Ab homonyma specie (*Rizoph. Vaucheriæ* De Wild.) zoosporangiis multo minoribus etc. mox distinguenda.

HARPOCHYTRIUM Lagerh. — Syll. XI p. 249.

1739 1. **Harpochytrium Hedenii** Wille in Petermann's Mitteil. Erg. Heft p. 131, p. 371, 1900: cfr. Atkinson in Journ. of Mycol 1904, vol. X, pag. 7, tab. 72, fig. 1-19, *Rhabdium acutum* Dang. Ann. Mycol. 1903. p. 61-64 (1903), *Fulminaria Hedenii* Wille, Nyt Mag. f. Naturvidenskab. 41, p. 175 (1903). — Totum 80-180 × 4-10, fusiforme mox fortiter curvatum, sessile v. subsessile; basi (haustorio) subdilatata, teste Dang.; zoosporis plerumque 1-seriatis, in formis majoribus 2-3-seriatis, globosis, majusculis, 4-6 μ. diam., plerumque 16, teste Dang.

Hab. in filamentis Spirogyræ et Œdogonii in Gallia, in Spirogyris quibusd., raro in Zygnemate in Amer. bor., in Zygnemate et Spirogyra in Tibet Asiæ et in Zygnemate in Patagonia Amer. merid.

1740 2. **Harpochytrium Hyalothecæ** Lagh. (1890) — Syll. XI. p. 249 absque diagnosi: cfr. Atkinson in Journ. of Mycol. 1904, vol. X, pag. 7, tab. 72. fig. 20-26, *Harpochytr. Hyalothecæ* Schroet. in Rabh. Krypt. Fl. 4. p. 114 (1892), *Fulminaria mucophila* Gobi Script. Bot. Fasc. 15. p. 283-292 (1899), *Fulmin. mucophila* Wille, Nyt. Mag. f. Naturvidenskab. 41, pag. 175 (1903). — Totum 20-60 × 1,5-2, basi filamento longissimo matrici insertum, fusiforme curvu-

lum, sursum acutatum, intus granulosum; zoosporis uniseriatis minutis.

Hab. in Hyalotheca dissilienti in Finlandia, Suecia et in Amer. boreali et in Sphæromate vertebrato, Cosmocladio spec., Dictyosphærio spec. in Finlandia.

3. **Harpochytrium intermedium** Atkinson in Ann. Mycol. 1903. p. 500. [1742] t. X, fig. 22-23 et in Journ. of Mycol. 1904. vol. X. pag. 3. — Totum 40-70 × 3-4, anguste fusoideum, rectum v. curvulum, sessile; zoosporis uniseriatis, minutis.

Hab. in Conferva utriculosa, Cambridge, Massach. in Amer. bor. (Dr. Thaxter).

SYNCHYTRIUM De Bary — Syll. VII p. 288, IX p. 357, XI p. 247, XIV p. 441, XVI p. 390.

1. **Synchytrium** (Leucochytrium) **montanum** Zopf in Zahlbruckn. [1743] Sched. ad Crypt. exsicc. Cent. IX. p. 358, n. 840. — Maculas atro-violaceas usque violaceo-brunneas leviter elevatas formans; sporis perdurantibus singulis v. bi–quaternis in quaque cellula epidermica, ovoideis v. piriformibus, usque 176 × 154; contentu omnino hyalino, oleoso; membrana crassa, solida, hyalina, exosporio crasso, levi, endosporio quoque crasso, hyalino.

Hab. in foliis, calycibus, rarius caulibus Brunellæ vulgaris in Tiroliæ pluribus locis montanis, in Salzburg et Schwarzwald montibus. — In *Brunella grandiflora* numquam lecta species.

CHYTRIDIUM A. Braun — Syll. VII p. 304, IX p. 358, XI p. 250, XIV p. 446.

1. **Chytridium gibbosum** Scherffel in Hedw. 1902. p. 105. — Zoo- [1744] sporangiis epiphyticis, utriculiformibus, gibbosis, perpendicularibus vel obliquis vel decumbentibus, operculo convexo, 4 u. diam., dehiscentibus; vesicula subsporangiali, endophytica, plerumque globosa, ex qua rhizoides oriuntur; zoosporis uniciliatis, oscillantibus, typice chytridiaceis; sporis perdurantibus ignotis.

Hab. in Cladophora, in horto botanico Budapest Hungariæ

PHYSODERMA Wallr. — Syll. VII p. 317, IX p. 368, XI p. 250, XIV p. 447.

1. **Physoderma Crepidis** Rostr. Islands Svampe in Bot. Tidsskrif. [1745] Copenhagen 1903, vol. 25, pag. 286. — Maculis pustuliformibus, rotundatis, granulatis, 0,5-1 mm. diam.; sporis irregulariter glo-

bosis, 40-50 μ. diam.; episporio crasso, dilute flavescente, circ. 5 μ. crasso.

Hab. in foliis Crepidis paludosæ in Dania.

2. **Physoderma Debeauxii** Bubák, Ann. Mycol. 1903, p. 255, *Entyloma Debeauxii* Bubák olim. — Maculis elliptico-oblongis 1-3 cm. long., 1-2 cm. lat., flavidis, subinde confluendo majoribus; soris in quaque macula 1-4 ellipsoideis, 5-8 × 3-5 mm. subinde amplioribus; sporis ovoideis, 16-33 μ. cr., paucis (ad summum 5) in cellulis non ampliatis mesophylli nidulantibus, hic convexis, hinc plano-umbilicatis, mycelio nullo observato; exosporio tenui castaneo, minute verruculoso; endosporio duplo-triplove crassiore hyalino; contentu oleoso hyalino-flavidulo. 1745

Hab. in foliis vivis Scillæ maritimæ prope Oran Algeriæ 1882 (Debeaux).

CLADOCHYTRIUM Now. — Syll. VII p. 295, XI p. 250, XIV p. 448, XVI p. 393.

1. **Cladochytrium Brevierei** Har. et Pat. Bull. Soc. Mycol. 1904, p. 61. — Sporis perdurantibus hemisphæricis, planis vel concavis, 27-40 × 24, in tuberculis vix 0,5 mm. diam., subglobosis, sparsis vel dense gregariis nidulantibus; episporio crasso, levi, brunneo. 1746

Hab. in caulibus et foliis Euphrasiæ spec., prope Arlanc, in Arvernia Galliæ. — *Clad. Kriegeriano* valde affine, sed sporis angustioribus primo obtutu distinctum.

NOWAKOWSKIELLA Schröt. in Engl. Pflanzenfam. Pilze I, p. 80 et 82, fig. 64 (Etym. a cl. Nowakowski). — Mycelium pluries ramosum, hinc inde inflatum. Sporangia globosa v. ellipsoidea, operculo dehiscentia. Zoosporæ globosæ v. ellipsoideæ, 1-ciliatæ.

1. **Nowakowskiella** (Now.) Schröt. l. c. *Cladochytrium elegans* Now. — Syll. VII, p. 296.

2. **Nowakowskiella endogena** Costantineanu, Rev. gén. Bot. 1901 p. 384 cum ic. et Rev. Mycol. 1903, p. 38, t. 229, f. 10-20. — Mycelio intermatricali, ramoso; zoosporangiis terminalibus piriformibus, collo brevi operculato munitis, 1-2 in quaque cellula matricis; zoosporis sphæricis, ratione majusculis 7 μ. cr. 1-ciliatis, excentrice 1-guttatis, in singulo sporangio parum numerosis. 1747

Hab. intra folia putrescentia et aqua immersa Alismatis Plantaginis, Jassy in Romania. — Species inter *Nowakowskiellam* et *Cladochytrium* media.

UROPHLYCTIS Schroet. — Syll. VII, p. 303.

1. **Urophlyctis Alfalfæ** (Lagerh.) P. Magnus in Bericht. Deutsch. Bot. Gesell. 1902, p. 291, tab. XV (absque diagnosi!) *Cladochytrium Alfalfæ* Lag. in Bull. Herb. Boiss. vol. III (nomen). — Præcipue structura et forma gallæ, quam generat, a speciebus affinibus diversa. 1748

   Hab. in radicibus Medicaginis sativæ in Æquatoria Argentinia et pr. Colmar i. Els.

2. **Urophlyctis Rübsaameni** P. Magn. Ber. D. B. G. Gener. Heft 1901, p. 150, tab. XXVII (sine diagnosi). — Hypogæa, in radicibus *Rumicis* excrescentias globuloso-tuberoideas usque 2–3 cm. long. generans; sporis perdurantibus excrescentias implentibus et lacunas varias gignentibus, hemisphæricis, levibus, brunneis, infra concaviusculis, 40-45 μ. diam.; mycelio filiformi vage ramoso, cellulas mares generante et inter sporas perdurantes intersperso. 1749

   Hab. in radicibus Rumicis scutati pr. St. Goar, Coblenz, Germania (Ew. H. Rübsaamen).

3. **Urophlyctis Trifolii** (Pass.) Magnus in Centralbl. f. Bakt. 1902, IX, p. 896, *Synchytrium Trifolii* Pass. in Rabenh. F. Eur. n. 2419 (1877), *Olpidium Trifolii* (Pass.) Schröt. — Syll. VII, pag 311, *Urophlyctis bohemica* Bubák, Centralbl. Bakt. 1902, pag. 817. — Pustulis vitreis semiglobosis, in petiolis usque 1 mm., in lamina foliorum usque 0,5 mm. latis; sporangiis perdurantibus sæpe ultra 200 in una pustula, parce parenchymatico-cellulosis, cellulis membrana demum clathrato-perforata, bilateralibus, apice altero semiglobosis, altero alte impressis; membrana sporarum levi, duplici, fusca exosporio tenui, endosporio crasso; sporis 40-50 μ. diam. 1750

   Hab. in foliis Trifolii montani (forma sporangiis perdur.) in pratis Vsetaty Bohemiæ, nec non in foliis Trif. pratensis et repentis in Italia et Germania.

4. **Urophlyctis hemisphærica** (Speg.) Syd. Ann. myc. 1903, pag. 517. Ita nominanda sunt: *Uromyces hemisphæricus* Speg. (1881), dein *Protomyces vagabundus* Speg. (1891), tandem *Entyloma hemisphæricum* Speg. (192), *Œdomyces hemisphæricus* Speg. Not. synonym. p. 9 (1903), *Physoderma leproides* (Trab. et Sacc.) Lagerh. (1898). Cfr. Syll. XIV, p. 448, quæ species vero forte distinguenda est sub nomine *Urophlyctis leproides* (Trab.) Magn. in Ann. of Bot. 1897, p. 92, ubi et aliæ generis species optime illustrantur. Teste cl. Magnus, genus *Urophlyctis* a *Physodermate* est bene distinctum.

PROTASCUS Dang. Compt. rend. de l'Acad. de Sc. 1903, pag. 627 (Etym. *protos* primus et *ascus*). — Mycelium ampulliforme matrici immersum, collo longissimo perforante; sporangium nucleis 8 rarius 16 vel 32 fœtum, sporas longissimas immobiles tot quot nucleos generans. — *Lagenidio* et *Myzocytio* affine genus.

1. **Protascus subuliformis** Dang l. c. char. gen. (dimensiones omnes ab auctore omissæ). 1751

Hab. parasitice in Anguillulis in Gallia.

LAGENIDIUM Schenk — Syll. VII p. 278, IX p. 348, XI p. 248, XIV p. 450.

1. **Lagenidium Œdogonii** Scherffel in Hedw. 1902, p. (105). — Thallo unicellulari, tantum cellulam unicam afficiente, se totaliter in zoosporangium unicum (vel 2?) mutante, hyalino, utriculiformi, irregulari, valido, interdum ramis nonnullis, curtis, obtusis, validis; ductu evacuationis zoosporangii levi, cylindrico, æquali; zoosporis typice ancylistaceis, formam seminis Vitis viniferæ imitante, ciliis duobus, lateralibus. Propagatio sexualis (oogonia et antheridia) ignota. 1752

Hab. in cellulis vegetativis Œdogonii, Iglò Hungariæ.

PYRRHOSORUS Juel in Bih. Svenska vet. Akad. 1901, p. 14 (extr.) (Etym. *pyrrhos* igneo-ruber et *sorus*). — Plasmodium e cellulis liberis, nudis liberis, fusiformibus, granulosis formatum. Sorus e sporangiis magnis, globosis et cellulis fusiformibus sterilibus compositus. Sporangia granulis aurantiacis farcta, 8 vesiculas (zoosporas) sphæroideas includentia. Zoosporæ piriformes, nucleo aurantiaco præditæ, biciliatæ.

1. **Pyrrhosorus marinus** Juel. l. c p. 14 cum icone. — Sporangiis globosis 8 μ. diam.; zoosporis piriformibus, 4,5 × 2,5. 1753

Hab. in ramis emortuis Cystoclonii purpurascentis pr. Kristineberg in Suecia. — Saprophyta.

RHIZOCLOSMATIUM H. E. Petersen in Journ. de Bot. 1903, p. 214 (Etym. *rhiza* radix et *closmation* glomus). — Sporangia globosa, crassiuscule tunicata, mycelio sub sporangiis in inflationem fulciformem dilatato et hinc in filamenta radiatim divergentia partito cincta. Filamenta tenuissima ramosissima, prælonga. Zoosporæ globulosæ v. ovoideæ, flagello longissimo præditæ, per porum circularem sporangii exeuntes.

1. **Rhizoclosmatium globosum** Petersen l. c. c. ic. — Sporangiis sæ- 1754

pius 17–20 μ. d., subinde multo amplioribus, initio guttulatis et vacuolatis; zoosporis 2-3 μ. diam. rubiginoso-nucleolatis; sporis immobilibus rarioribus, tunica brunnea præditis, granulis refringentibus fœtis.

Hab. frequens in tegumentis vacuis nympharum Phryganearum in aquis dulcibus Seelandiæ.

SIPHONARIA H. E. Petersen Journ. de Bot. 1903, pag. 220 (Etym. *sipho* tubus). — Sporangia subglobosa v. piriformia, mycelio sub sporangiis non dilatato et in filamenta parce ramosa tubulosa divergentia diviso basi prædita. Zoosporæ uniciliatæ (?), per papillam lateralem sporangii exeuntes.

1. **Siphonaria variabilis** H. E. Peters. l. c. cum icon. — Sporangiis 17–24 × 16-21, subinde 12 × 11, tenuiter hyalino-tunicata; zoosporis 1–3 μ. diam. globulosis, rubiginoso-nucleolatis. 1755

Hab. non frequens in tegumentis nympharum Phryganearum in aquis dulcibus Seelandiæ.

ASTEROPHLYCTIS H. E. Peters. Journ. de Bot. 1903, p. 218 (Etym. *aster* et *phlyctis* bulla). — Sporangia globulosa, tunicis extus irregulariter cristato-dentata, mycelio sub sporangiis inflato et hinc in filamenta tenuissima, ramosa longa producto unilateraliter aucta. Zoosporæ 1-ciliatæ per porum basilarem sporangii exeuntes.

1. **Asterophlyctis sarcoptoides** H. E. Peters. l. c. c. icone. — Sporangia 21-28 × 14–25; zoosporæ 2–3 μ. diam. 1756

Hab. rarius in tegumentis vacuis nympharum Phryganearum in aquis dulcibus Seelandiæ.

SPOROPHLYCTIS Serbinow in Travaux de la Soc. impér. de Naturalistes de St. Pétersbourg, 1899, t. XXX, p. 322 (Etym. *spora* et *phlyctis* pustula, bulla). — Mycelium vesiculiforme ovoideum, rostello minuto præditum; vesicula in hyphas sæpe ramulosas sensim transiens. Contentus hujus mycelii e poro effusus et dein membrana vestitus, in sporangium transmutatum. Sporæ intra sporangium germinantes et per hyphulas illud perforantes et intra algarum matricum cellulas penetrantes. Propagatio sexualis quoque evenit: protoplasmatis pars individui unius in individuum alterum effunditur et, membrana induta, in oosporas spinulosas transmutatur. — Ab affinibus generibus reproductione per sporas, non per zoogonidia, dignoscitur.

1. **Sporophlyctis rostrata** Serbinow l. c. — Characteres generis. 1757
Hab. parasitice in filamentis algarum Draparnaldiæ et Chætophoræ in Rossia.

Fam. 4. **Saprolegniaceæ De Bary** *).

SAPROLEGNIA Nees — Syll. VII p. 268, IX p. 345, XI p. 244, XIV p. 453.

1. **Saprolegnia retorta** L. Horn in Ann. mycol. 1904, p. 233 (absque 1758
diagnosi). — Mycelio filiformi, tenuissimo, ramoso, hyalino, 15 μ. cr. continuo; sporangiis breve clavatis paucis; oogoniis copiosis sphæricis, in ramulis sæpe valde curvatis acrogenis, 1-8-sporis, 30-75 μ. diam., oosporis globosis 20-25 μ. diam., guttulam oleosam foventibus.
Hab. in aqua Pisorum pr. Halle Germaniæ. — Affinis *S. spirali.*

ACHLYA Nees — Syll. VII p. 274, IX p. 346, XI p. 245, 650.

1. **Achlya oidiifera** L. Horn in Ann. mycol. 1904, pag. 230 (absque 1759
diagnosi). — Hyphis cylindraceis usque 45 μ. cr., subinde in articulos ellipsoideo-oblongos (oidiiformes!) secedentibus; oogoniis sphæricis varia magnitudine, minute punctatis, 2–8-sporis; oosporis, vetustis visis, hinc lateraliter oleoso-guttatis.
Hab. in animalculis variis, Formicis, Verminibus etc. pr. Halle Germaniæ (etiam in aqua Pisorum culta).

PYTHIUM Pringhsh. — Syll. VII p. 270, IX p. 343, XI p. 244, XIV p. 455, XVI p. 395.

1. **Pythium ultimum** Trow, Ann. of Bot. 1901, p. 300, tab. XV et 1760
XVI — Mycelio saprophytico; hyphis filiformibus 6 cm. longis, 1,7–6,5 μ. diam. ramosissimis, maturitate septatis, conidiis terminalibus, globosis vel oblongis, 27,8 × 22,9 vel 17 × 14; oogoniis terminalibus, sphæroideis levibus, 19,6-22,9; antheridiis solitariis, in cultura raro binis in singulo oogonio; oosporis solitariis, sphæri-

*) Quoad Monoblepharidaceas cfr. Thaxter, Not. on Monoblepharis in Rhodora 1903, p. 105 cum optimis iconibus.

cis 14,7-18,3, membrana crassa, duplici, luteola donatis; zoosporis nondum evolutis.

Hab. in plantis juvenilibus Nasturtii, in foliis putridis et in tuberibus coctis Solani (in capsula Petri cultum), Cardiff Britanniæ.

Fam. 5. Peronosporaceæ De Bary.

Drepanoconis Schröt. et P. Henn. — Syll. XIV p. 457.

1. **Drepanoconis larviformis** Speg. Not. Synonym. pag. 9, 1903, in Ann. Mus. Nac. Buenos Ayres Tomo IX. — Ita nominandus *Helicomyces larvæformis* Speg. — Syll. X p. 568 — qui idem est hac *Drepanoconis brasiliensis* Schröet. et Henn., teste Spegazzinio. Etiam *Uredo farinosa* Henn., forte huc spectat, teste eodem Spegazzinio.

Cystopus Lév. — Syll. VII p. 233, IX p. 340, XI p. 242, XIV p. 458, XVI p. 396.

1. **Cystopus Mikaniæ** Speg. Myc. argent. ser. II, 1902, pag. 67. — 1761
Maculis nullis; soris hypophyllis, numerosis, angulatis, 0,5-2 mm. diam., epidermide disrupta cinctis; conidiis eximie discoideis, numerosissimis, 16-18 × 8-10, utrinque concaviusculis; oogoniis desideratis.

Hab. ad folia viva Mikaniæ phyllopodæ, in dumetis prope Cordoba in Argentina (T. Stuckert).

2. **Cystopus platensis** Speg. Rev. Arg. de Hist. Nat. p. (7). *C. cubicus* Speg. in Fung. Arg. p. I, n. 68, nec Lév. — Soris hypophyllis, macula primo pallescente dein purpurascente cinctis, irregularibus, 1-2 mm. diam., sparsis v. hinc inde laxe gregariis, vix prominulis, candidis, diu epidermide velatis, dein erumpentibus ac pulverulentis; conidiis globoso-cuboideis, 20-22 × 18-20, hyalinis, catenulatis, minute densissimeque punctulatis (an tantum granuloso-farctis?) supremis ovato-obtusis; cellulis basalibus sterilibus, obconico-turbinatis, 40-45 × 12-15, crasse tunicatis, per ætatem flave scentibus; oosporis ignotis. 1762

Hab. in foliis vivis Boerhaviæ hirsutæ, prope Buenos Aires et prope Cordoba Amer merid. — *Cyst. Bliti* (Biv.) de Bary paraffinis sed conidiis punctulatis majoribus satis, ut videtur, recedens.

SCLEROSPORA Schröet. — Syll. VII p. 238, IX p. 341, XIV, 461.

1. **Sclerospora graminicola** (Sacc.) Schroet. — Syll. VII, p. 238. — 1763
var. **Setariæ-italicæ** Traverso in Bull. Soc. botanica ital. 1902, n. 9, p. 168. — A typo differt oosporis majoribus, nempe 39-45 μ. diam. nec 23-38 (sine tunica oogoniali); tunica oogoniali, magis regulariter sphærica, 7-11 μ. cr. nec 4-6; totâ spora denique 53-64 μ. diam. nec 39-55; differt etiam tunicâ oosporarum tenuiori. Status conidiophorus ignotus videtur.

Hab. in foliis et spicis (in virescentiam inductis) Setariæ italicæ, Albosaggia, prope Sondrio, Ital. bor. et in America bor.

PLASMOPARA Schroet. — Syll. VII p. 239, IX p. 342, XI p. 243, XIV p. 460.

1. **Plasmopara Vincetoxici** Ell. et Ev. in Journ. of Mycol. 1902, p. 70. 1764
— Cæspitulis hypophyllis, albis, 3-4 mm. diam., in longitudinem subconfluentibus et in pagina inferiore maculas, brunneas efformantibus; conidiosporis brunneis continuis, 8-10 μ. cr., superne 2-3-ramosis; ramis ultimis sterigmata 8-10 μ. long. ferentibus; conidiis globosis vel breve ellipticis circ. 15 × 13; oosporis globosis brunneis circ. 20 μ. diam.

Hab. in foliis Vincetoxici spec., Alabama Americæ.

2. **Plasmopara cubensis** (B. et C.) Humphrey in Mass. Agric. Stat. 1765
Rep. 1890, p. 210, t. II, f. 11-14, *Peronospora cubensis* B. et C. — Syll. VII, p. 261, ubi diagnosis ex B. et C. imperfecta — Oogoniis adhuc ignotis; conidiis basi apiculatis, 22-25 × 15-17, typice violaceis (ex Humphrey) v. olivaceo-brunneis (a nobis visis).

Hab. in foliis Cucumeris sativi, C. Melonis, Cucurbitæ Peponis, Cocciniæ, Momordicæ, Melothriæ, Sicyi aliisque Cucurbitaceis in Java, Amer. bor., Africa orient., Mancuria, Japonia, Britannia, Austria, Italia, Hungaria, Rossia. — var. **tweriensis** Rostowzen. in Flora 1903, p. 405: conidiophoris et conidiis quam in typo paullo crassioribus. In fol. Cucumeris sativi, Twer Rossiæ. — var. **atra** Zimm. in Centralbl f. Bakter. 1902, p. 148: conidiis 24-26 × 16-20 griseo-atris. In fol. Cucurbitæ, in Java (Verisimiliter utraque var. vix consideranda). Cl. Rostowzen l. c. pro hac specie genus instituit novum (*Pseudoperonospora*) medium, teste auctore, inter *Peronosporam* (cujus habet conidiophora) et *Plasmoparam* (cujus haberet conidia plasmopara, sed non conidiophora). Sed res ulterius inquirenda.

PERONOSPORA Corda — Syll. VII, p. 244, IX p. 342, XI p. 243, XIV p. 458, XVI p. 397.

1. **Peronospora cristata** Tranzsch. Enum. fung. in Tauria a. 1901, lecti, 1902 p. 3. Trav. du Musée Bot. An. de l'Acad. Imp. des Sciences de St. Pétersbourg. livr. I, 1902, p. 49 (rossice) et livr. II, 1904 (latine). — Conidiophoris singulis v. pluribus e stomatibus exeuntibus, 300-500 μ. altis, 8-9 μ. crassis; parte ramosa $^1/_4$-$^1/_5$ totius altitudinis conidiophori sistente; ramis rectis vel parum curvis, acutangulo-divaricatis, extimis breviter subulatis, terminalibus rectis, lateralibus brevioribus, parum curvatis, sub angulo recto vel obtuso divergentibus; conidiis ellipsoideis, obtusis, 24-28 × 16-26, subhyalinis; oogoniis globosis, tunica achroa, tenui præditis; oosporis globosis, 31-47 μ. diam., fuscis, cristulis et verruculis acutatis ornatis. 1766

   Hab. in foliis Papaveris hybridi in Tauria sat vulgaris (non in Pap. Argemone). — *P. Holostei* Casp., cui species proxima, differt cristulis et verrucis oosporarum densius dispositis. Conidiophora dense superficiem inferiorem foliorum obtegunt, oosporæ copiose in foliis occurrunt.

2. **Peronospora Eranthidis** (Pass.) Fisch. Phyc. pag. 475, Berl. Ic. fung. Phyc. pag. 38, *P. Myosuri* f. *Eranthidis-hiemalis* Pass. in Thüm. M. U. n. 1015. — Cæspitulis densis totum folium occupantibus, sordide albescentibus; conidiophoris singulis v. pluribus fasciculatis, circ. 300 × 8-10, 5-7-ies ramosis, ramis plus minus curvatis, extimis subulatis, longiusculis, recurvatis; conidiis elongato-ellipsoideis, obtusis, pallide lutescentibus, 38-46 × 17; oosporis globoso-angulatis, perinio crasso, obscure luteo-brunneo, 34-42 μ. d. 1767

   Hab. in foliis Eranthidis hiemalis in Italia sup. — A *Peron. Ficariæ* præcipue conidiis longioribus differre videtur.

3. **Peronospora Nicotianæ** Speg. Rev. Arg. de Hist. Nat. 1891, p. (11). — Cæspitulis hypophyllis, macula flavescenti-pallescente amphigena insidentibus, araneoso-pulverulentis, laxis, tenerrimis, sordide subcinerescentibus; hyphis conidiferis erectis, molliusculis 250-500 × 10-12, deorsum vix incrassatulis, in dimidia parte infera 190-250 μ. longis, simplicibus, in supera corymboso-ramosis, pluries (6-7) dichotomis, ramulis extimis longiusculis 15-18 × 2-3, divaricato-patentibus, arcuatis v. subsigmoideis, apice obtusiusculis monocarpicis; conidiis ellipsoideis vel ovoideis non vel vix apiculatis 18-20 × 9-11, episporio tenui levi, fumoso tectis, protoplasmate nubiloso hyalino farctis; oogoniis globoso-angulosis 80- 1768

100 μ. diam., tunica crassa hyalina, oosporam unicam globosam 50-80 μ. diam., episporio eleganter denseque areolato fulvo-fuligineo subopaco tectam gerentibus.

Hab. in foliis vivis Nicotianæ longifloræ in nemerosis Palermo vocatis, prope Buenos Aires Argentinæ Amer. merid.

4. **Peronospora dubia** Berl. Ic. fung. Phycom. p. 23, t. 28, *Peronospora Hyoscyami* Thüm. Fungi Austr. n. 939, non De Bary. — Cæspitulis densiusculis, griseolis; conidiophoris humilibus, 180–220 × 9–10, paucis e stomatibus fasciculatim exeuntibus, superne ter quater dichotomo-ramosis, ramis pænultimis et ultimis rectangulo-divaricatis, rectis v. parum curvis, ultimis vero apice obtusiusculis; conidiis majusculis late obovoideis, basi parum attenuatis, superne obtusissimis, 22-27 × 16-20, pallide griseolis; oosporis ignotis. 1769

Hab. in foliis Hyoscyami nigri in Austria. — A *Per. Hyoscyami* videtur diversa et potius *P. effusæ v. minori* proxima.

5. **Peronospora Floerkeæ** Kellerm. Journ. of Mycol. 1904, pag. 172, tab. 74. — Conidiophoris crasse cylindraceis, 16-18 μ. cr., elongatis, longo tractu simplicibus, supra copiose ramosis, ramis semel v. bis dichotomice v. irregulariter divisis, ramulis summis tenuibus, angustis, conspicue curvatis; conidiis ovoideis v. subglobosis, 24-32 × 18-25; oosporis numerosis, subglobosis, 24-36 μ. diam., membrana brunneola, levi v. leviter rugosa. 1770

Hab. in foliis caulibusque Floerkeæ proserpinacoidis, Columbus, Ohio Amer. bor. — Affinis *Per. parasiticæ* sed irregularius ramosa, ramulis ultimis longioribus, vix matricem deformans etc.

6. **Peronospora Saxifragæ** Bubák in Hedw. 1903, p. (103). — Cæspitulis laxis, tenuibus, dilute violaceis; conidiophoris quater-sexies dichotomo-ramosis, leviter bulbosis, 400-800 μ. long., infra 11-14 μ. cr.; ramulis, angulo acuto patentibus, ultimis inæqualibus sæpe 11-20 μ. long. angulo recto v. obtuso divergentibus, fortiter incurvatis, sæpius laxis; conidiis dilute violaceis, ellipsoideo-oblongis, 26-33 × 17-22, apice rotundatis, basi in pedicellum brevem attenuatis indeque sæpe piriformibus; oosporis non visis. 1771

Hab. in foliis Saxifragæ granulatæ, prope Pragam Bohemiæ — A *Per. Chrysosplenii* probe distincta.

7. **Peronospora Polygoni** Halst. Journ. of Myc. 1889, p. 9, Berl. Ic. fung Phyc. p. 25, t. XXXI. — Cæspitulis densis sordide violascentibus, effusis; conidiophoris plerumque pluribus e stomatibus 1772

exeuntibus, 320-420 × 9-11, superne 5-7-ies ramosis; ramis præcipue secundi et tertii ordinis plerumque curvulis, patulis, extimis sub angulo recto exeuntibus, lateralibus sæpius brevioribus; conidiis elongato-ellipsoideis inferne parum attenuatis, fere obpiriformibus, majusculis, 30-40 × 15-20, dilute griseolis; oosporis adhuc ignotis.

Hab. in foliis Polygoni Convolvuli et P. avicularis in Austria, Amer. bor. — Cll. Halsted et Berlese ll. cc. tribuunt Thümenio hanc speciem sed cl. Thümen nullibi nomen *Per. Polygoni* scripsit, hoc observante cl. Oudemans in Rev. Myc. 1902.

CHLOROSPORA Speg. Rev. Arg. de Hist. Nat. 1891, pag. 29, Sacc. Syll. XI p. 243 (nomen) (Etym. *chloros* virens et spora.) — Mycelium hyphoideum dense ramoso-intricatum, hyalinum, endogenum, haustoriis præditum; hyphæ conidiophoræ superficiales pinnatim alterne ramosæ; ramuli spinæformes monocarpici; conidia acrogena simplicia, colorata, plasmopara. — Oosporæ ignotæ.

1. **Chlorospora vastatrix** Speg. l. c. — Mycelio endogeno, per totum 1773
bulbum serpente, præcipue in partem inferam circa radices, maculas primo purpurascentes, dein sordide lateritias, postremo sordide olivaceas ac purulento-mucosas efficiente, ex hyalino candido, densissime ramoso, ramis crebre intricatis, tortuoso-intestiniformibus, 10-12 μ. crassis, hinc inde parce septulatis, protoplasmate hyalino dense grosseque oleoso-guttiformi farcto, haustoriis versiformibus 8-10 × 5-7, levibus vel colliculoso-nodulosis pius minusve densis armato; ramulis fertilibus (in cultura tantum evolutis), superficialibus, densiusculis, repentibus teretibus 10-30 mm. long., 8-10 μ. crassis, septulatis, plus minusve intricatis, alterne distichoramulosis; ramululis continuis vel rarius 1-pseudo-septatis rectis, acutis 50-80 × 5-6, monacarpicis; conidiis obovatis 24-40 × 20-30, superne obtuse rotundatis, inferne subcuneato-rotundatis minuteque papillatis, episporio tenui levissimo, primo hyalino dein chlorino, postremo olivaceo v. subfuligineo vestitis, protoplasmate hyalino nubiloso vel grosse 1-guttulato farctis; oosporis ignotis.

Hab. in bulbis vivis Allii Cœpæ, in hortis prope La Plata Amer. mer. — Species perniciosissima. In germinatione protoplasma ex papilla basali protrudit, ac hypham longiusculam gracilem etiam pinnati-ramulosam emittit.

PYRENOMYCETÆ Fr. Em.

Syll. I p. 1, IX p. 364, XI p. 252, XIV p. 462, XVI p. 398.

Fam. 1. **Perisporiaceæ** Fr.

Trib. 1. **Erysipheæ** Lév. *)

SPHÆROTHECA Lév. — Syll. I p. 3, IX p. 364, XIV p. 462, XVI p. 402.

1. **Sphærotheca Castagnei** Lév. — Syll. I, p. 4. — * **Sph. Delphinii** Karst. Fungi nov. Lœnnb. 1904, p. 5 (Finska Vetensk. Soc.). — Amphigena; mycelio tenui evanescente, arachnoideo, pallescente; peritheciis sparsis sphæroideis, fuscis 50-80 μ. diam., appendiculis paucis (3-6), continuis, subinde ramosis, fuligineis, apicem versus dilutioribus, flexuosis, perithecio duplo vel triplo longiobus; ascis subsphæroideis vel late ellipsoideis magnis, octosporis; sporidiis late ellipsoideis, hyalinis; conidiis non visis. 1774

   Hab. in foliis Delphinii grandiflori in territorio Baicalensi (O. A. F. Lönnbohm).

PHYLLACTINIA Lév. — Syll. I p. 5, IX p. 366, XVI p. 398.

1. **Phyllactinia antarctica** Speg. – Syll. IX, p. 366. — Huc ducenda est *Phyll. clavariæformis* Neger. — Syll. XVI, 398. — Cfr. Spegazzini Myc. argent. ser. II, 1902, p. 68.

UNCINULA Lév. — Syll. I p. 6, IX p. 366, XI p. 252, XIV p. 462, XVI p. 399.

1. **Uncinula septata** E. S. Salm. in Journ. of Bot. 1900, p. 427, c. icon. et Supplem. Not. Erysiph. 1902, p. 102. — Hypophylla; mycelio evanescente; peritheciis plus minus sparsis, globoso-len- 1775

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*) Conferendum imprimis optimum opusculum *Suppl. Notes on the Erysiph.* New York 1902, cl. E S. Salmon.

ticularibus, majusculis 160-210 μ. diam.; cellulis perithecii exterioribus distinctis, minutis, 5-10 μ. diam., appendicibus crebris 100-170 vel pluribus in eodem perithecio, 30-100 × 5, simplicibus, levibus, 1-8-(plerumque 5-septatis) deorsum succineis, apicibus plerumque helicoideis; ascis 6-12 in quoque perithecio, immaturis visis.

Hab. in foliis Quercus glanduliferæ, Mt. Myogi, Prov. Kozuki (Kusano) et Mt. Tsukuba (T. Nishida). — Præcipue appendicibus septatis dignoscenda species.

2. **Uncinula conidiigena** Cocconi in Mem. R. Accad. sc. Bologna, Ser. V, t. X, 1904, p. 235 cum tabula. — Peritheciis mycelio (*Oidium*) effuso insidentibus minutis globulosis, flavo-brunneis, appendicibus numerosis apice uncinatis cinctis, ascos nonnullos 3-7 oblongo-ovoideos breviter stipitatos continentibus; sporidiis in quoque asco quaternis globosis, intus granulosis, etiam intra ascum germinantibus, dein expulsis, in mycelium conidia Oidii normalia generans abeuntibus; conidiis normalibus interdum germinantibus et conidiola minora ovoidea in apice hypharum gignentibus. 1776

Hab. in foliis vivis Populi tremulæ in agro Bononiensi. Fere absque dubio forma quædam Uncinulæ aduncæ.

MICROSPHÆRA Lév. — Syll. I p. 10, IX p. 368, XI p. 252, XIV p. 463, XVI p. 402.

1. **Microsphæra ferruginea** Erikss. Fung. paras. scand. n. 145, Salmon Mon. Erysiph. p. 169, f. 56-58. — Cæspitibus amphigenis, ferrugineis, pulveraceis, demum late effusis confluentibusque; conidiis utrinque rotundatis, pallide fuscis, pellucidis, 28-32 × 16-18; peritheciis fusco-atris, sparsis, mycelio densissimo arachnoideo persistenti intextis 80-90 μ. diam.; appendicibus 6-10, perithecium æquantibus v. duplo longioribus 4-6-ies dichotomis, hyalinis; ascis 6-8 μ. in quoque perithecio 44-50 × 26-30; sporidiis 6-8 in quoque asco 16-18 × 10-12. 1777

Hab. in foliis Verbenæ hybridæ cultæ, cui valde noxia, in Suecia.

2. **Microsphæra Betæ** Vahna Zeitschr. f. Zuckerind. in Böhmen XXVII, p. 180, t. I. — Hyphis conidiophoris repentibus haustoriis lobulatis, præditis; conidiis (*Oïdii*) cylindraceo-doliiformibus, utrinque obtusis 44 × 15-20 plerumque solitariis nec catenulatis; peritheciis globosis, brunneis, 75-130 μ. diam. astomis, laxe parenchymaticis, basi appendicibus 8-10 filiformibus continuis, flexuosis adscendentibus, subhyalinis, basi coloratis, sursum furcatis v. in 1778

ramulos subdichotomos laxiusculos, subinde apicibus bilobulatos divisis cinctis; ascis obovatis brevissime stipitatis in quoque perithecio 3-5, subtetrasporis; sporidiis ellipsoideis, levibus, intus granulosis, hyalinis, 28-30 × 18.

Hab. in foliis vivis Betæ vulgaris, quam valde vexat in Bohemia. — Teste auctore, species gignit zoosporangia et zoosporas, quod factum vere novum et notabile videtur, tamen novis experimentis confirmandum.

ERYSIPHE Hedw. — Syll. I p. 15, IX p. 870, XI p. 253, XVI p. 404.

1. **Erysiphe Acanthophylli** N. Speschnew, Fungi transcaspici et turkestanici, 1901, p. 5, tab. I, fig. 9-15. — Mycelio hypophyllo; hyphis tenuibus, ramosis vel simplicibus, septatis valde undulatis, achrois, granulosis, 1,5–2 μ. crassis; hyphopodiis nodosis, bifurcatis; peritheciis epiphyllis, solitariis, sparsis, haud immersis, globosis v. subglobosis, ca. 160 μ. diam., atris; setulis rectis, continuis, nucleatis, apice rotundatis, 2-3 μ. cr.; ascis late piriformibus, octosporis, 38 × 28; sporidiis subsphæricis, continuis, hyalinis, 8 μ. d.; hyphis conidiiferis ab hyphis mycelii non diversis; conidiis elongato-ovoideis, episporio tenuissimo, 38-43 × 16-19. 1779

Hab. in foliis caulibusque Acanthophylli glandulosi in Rossia.

2. **Erysiphe Euphorbiæ** N. Speschnew Fungi transcaspici et turkestanici 1901, p. 3, tab. I, fig. 1-8. — Mycelio epiphyllo, interdum hypophyllo, constricte effuso, confluenti, tenui; hyphis repentibus, ramosis, flexilibus, undulatis, septatis, dense intertextis, crassiusculis 4,9-7 μ. crass., hyalinis, hyphopodiis biclavatis, alternis, 14,8-22,5 μ.; peritheciis gregariis, globosis dein subglobosis, in villo nidulantibus 150-180 μ. diam., atro-brunneis; setulis hyalinis, continuis, enucleatis, undulatis, apiculo pedaliformi, 7-9 μ. crassis perithecio, duplo longioribus; ascis elongato-piriformibus, apiculo obtusis, operculatis, 3-6-sporis, 90-98 × 22-24 sporidiis ellipsoideis, continuis, 20-24 × 11-15, hyalinis; hyphis conidiiferis mycelio similibus; conidiis elongato-ovoideis, 20-24 × 12-16, episporio 2-3 μ. crasso. 1780

Hab. in foliis Euphorbiæ lanatæ in Rossia transcapica.

3. **Erysiphe taurica** Lév. — Syll. I, pag. 16. — var. **andina** Speg. Myc. Arg. ser. II, 1902, p. 68. — Peritheciis superficialibus, in vivo globosis, in sicco plus minusve cupulato-collapsis, 150-250 μ. diam. atris, contextu membranaceo-subcarnosulo, subopaco, appendi- 1781

cibus numerosis radiantibus, simplicibus v. parce ramosis, 100-130 × 4-6, primo hyalinis dein subchlorinis; ascis aparaphysatis 6-10 in quoque perithecio, subclavulatis, apice sæpius subtruncatis, basi in petiolo crasso brevissimo cuneatis, 70 80 × 35-40, bisporis; sporidiis ellipticis, utrinque obtusis, 26-30 × 12-14, obsolete guttulatis, primo tunica mucosa vestitis, hyalinis.

Hab. in foliis vivis Euphorbiæ cuiusdam prope Mendoza in Argentina.

4. **Erysiphe Asterisci** P. Magn. in Hedw. XLIV, p. 16, tab. II, — 1782
Conidiis valde elongatis, utrinque rotundatis, 52 × 16 extus minute granulosis (ex icone levibus et intus minute granulosis) in conidiophoro brevi solitarie acrogenis; peritheciis depresso-globosis, 194 μ. latis, 56 μ. alt., a medio deorsum appendiculis seu hyphis numerosis tortuosis descendentibus, hyalinis (?), matrici firmiter affixis; ascis in quoque perithecio numerosis (usque 10) ovoideo-oblongis apice rotundatis, brevissime sensim stipitatis, 2-4-sporis, 80-85 × 28-30 (ex icone); sporidiis (immaturis visis) ellipsoideis monostichis.

Hab. in foliis Asterisci aquatici, Santa Cruz Teneriffæ insulæ (Bornmüller). — Perithecii contextus ex icone crassiusculus. Matrix sub quoque perithecio leviter impresso-concaviuscula.

5. **Erysiphe Solani** Vanha Zeitschr. f. Zuckerindustre in Böhmer 1783
XXVII (species ibi nominata, sed nondum descripta).

Hab. in foliis Solani tuberosi in Bohemia.

Trib. 2. **Eurotieæ** Sacc.

EUROTIUM Link. — Syll. I p. 95, IX p. 371, XI p. 254, XVI p. 1123.

1. **Eurotium microsporum** Mass. et Salm. Coproph. fungi I, p. 333, 1784
fig. 28. — Peritheciis sparsis circ. 130 μ. diam., globosis, primo flavovirentibus, dein citrinis, superficialibus; contextu parenchymatico e cellulis tenuibus 5-8 μ. latis composito; ascis sphæroideis v. subsphæroideis 7-8 μ. diam., citissime diffluentibus, octosporis; sporidiis minutissimis, sphæroideo-biconvexis, 2 μ. diam. levibus chlorinis.

Hab. in fimo Capreoli Capææ, Haplocerotis montani, Capræ dorcadis, Capræ sinaiticæ, Ovis Vignei, Caviæ Cobayæ, Kew Britanniæ.

2. **Eurotium rubrum** Bremer, Die fettverzehr. Organism. in Nahr. u. Futtermitteln. Dissert. Münster 1902 et in Zeitsch. f. Untersuch. d. Nahrung in Genussmitt. IV, 1901, pag. 72. — Mycelio primum niveo, dein flavo, tandem rufo-brunneo, 4-8 μ. diam.; conidiis ovoideis v. sphæroideis, griseo-virescentibus 5-8 μ. diam. verruculosis; peritheciis globosis, membranaceis, primum flavis, demum brunneo-rubris, 100-150 μ. diem.: ascis globulosis, octosporis; sporidiis lenticularibus, ambitu plano-sulcatis, levibus, hyalinis 6 μ. diam. e latere 4-5 μ. cr. 1785

Hab. in seminibus tritis putrescentibus Gossypii, socia *Moniliæ* spec., Münster in Germania. — Colore rubido dignoscitur imprimis ab *Eur. repenti* proxime affini specie.

PENICILLIOPSIS Solms Laubach. – Syll. IX p. 945, XI p. 355, XVI p. 406.

1. **Penicilliopsis palmicola** P. Henn. Fungi Amaz. III, 1904, p. 352, cum icon. — Stromatibus conidiophoris fasciculatis, filiformibus subulatis, carnosis, erectis, viridi-flavis usque ad 7 cm. longis, 1-2 mm. crassis, simplicibus, ex hyphis septatis 5–15 μ. crassis conflatis, sicco atrofuscis, succo sanguineo, conidiophoris lateraliter subcapitatis, ramulis clavatis plurimis circumdatis, sterigmatibus subfusoideis apiculatis, 13-16 × 4-5; conidiis catenulatis ellipsoideis flavo-fuscidulis, levibus, 6-7 × 4 5; ex eodem stromate conidiis catenulatis subcuboideis vel subglobosis, hyalinis, ca. 8-15 μ. diam. Stromata perithecigera ignota. 1786

Hab in fructibus Palmarum, Rio Juruá, Juruá-Miry Amazoniæ.

2. **Penicilliopsis juruensis** P. Henn. Fungi Amaz. IV, Hedw. XLIV, 1905, p. 59. — Stromatibus conidiophoris fasciculatis, filiformibus simplicibus, erectis, ca 10 cm. longis, 1-1 ½ mm. crassis, alutaceis; ex hyphis septatis conflatis, conidiophoris patentibus subcapitatis, sterigmatibus subfusoideis apiculatis 10-16 × 3–5; conidiis catenulatis ellipsoideis, flavo-brunneolis, levibus, 6-10 × 5-7. 1787

Hab. in seminibus Lecythidaceæ cujusdam, Rio Juruá Brasiliæ. — Habitu *P. palmicolæ* P. Henn.

3. **Penicilliopsis? togoensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 40. Syll. XVI, p. 1123 nomen. — Stromate conidiophoro phyllogeno, sparso, clavariiformi, simplici v. dichotomo-ramoso, fusco-brunneo 5-7 cm. longo, stipite tereti vel compresso 1-2 mm. cr., ramis subulatis in axillis compressis 0,5-1,5 cm. longis, levibus, sub- 1788

glabris, apice acutis, basidiis late clavatis, 30-35 × 20, fuscidulis ubique vestitis; conidiis catenulatis subglobosis v. ovoideo-ellipsoideis, fuscis v. brunneo-fuscis, verrucosis 6-9 × 6-7. Stromata ascophora ignota.

Hab. in foliis putridis, Togo Afr.

HYALODERMA Speg. — Syll. IX, p. 437. XI p. 270, XIV p. 465, XVI p. 406.

1. **Hyaloderma filicicolum** Pat. in Duss Enum. Champ. Guadel. 1903, 1789
p. 69. — Sparsum v. aggregatum; peritheciis globulosis, flavidopallidis, 180-300 μ. diam., mollibus, contextu hyalino, tenui, celluloso, basi pilis fasciculatis, rigidis, 15-30 × 5-7, radicantibus; ascis cylindraceis, octosporis, paraphysibus ramulosis; sporidiis linearibus, flexuosis, 65-90 × 3-4, obscure septulatis.

Hab. sub foliis languidis filicum (Meniscii sp.) ubi in mycelio hyphomycetis cujusdam vivit, Gourbeyre Guadalupæ (Duss).

Trib. 3. **Englerulæ** P. Hennings.

Perithecia tenui-membranacea, pallida, contextu subanhisto.

ENGLERULA P. Henn. in Engl. Bot. Jahrb. 1903, p. 49 (Etym. ab illustri botanico Engler berolinensi). — Perithecia hyphicola, superficialia, sicco subcornea, mellea, madore subgelatinosa, tenuimembranacea, sine structura cellulosa distincta, vix ostiolata. Asci ovoidei, octospori, aparaphysati; sporidia atro-fusca 1-septata.

1. **Englerula Macarangæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. — 1790
Peritheciis hypophyllis, sparse gregariis, superficialibus, in hyphis fuscis, septatis, ramosis 3,5-4 μ. cr. parasiticis?, basi hyphis hyalinis, septatis, ramosis, ca. 3-4 μ. cr., circumdatis; conidiis substellatis, fusoideis 1-3-septatis, intus 1-4-guttulatis, hyalinis. 10-20 × 3-4; peritheciis ovoideis, ca. 80-150 μ. diam. sicco subcorneis, submelleis fuscidulis, rugulosis, humido-gelatinosis, hyalinis, haud cellulosis, apice subostiolatis; ascis ovoideis, vertice crasse tunicatis, basi apiculato-curvulis, octosporis, 40-60 × 35-45, paraphysibus haud conspicuis; sporidiis conglobatis, ovoideis vel ellipsoideis, utrinque rotundato-obtusis, medio-septatis, paullo constrictis, biguttulatis, primo hyalinis, dein atris, 20-30 × 12-18.

Hab. in foliis Macarangæ, Ost-Usambara Africæ orient. (Engler).

SACCARDOMYCES P. Henn. Fungi Amaz. III, Hedw. 1904, p. 353 (Etym. genus Syllogis auctori humanissime dicatum). — Perithecia superficialia, minutissima, subovoidea, contextu tenui membranaceo, subanhisto, ex hyphis radiatis, pallido-fuscidulo, poro exiguo periphysibus tenuissime filiformibus instructo. Asci subfusoidei, 8-spori, paraphysati. Sporidia aciculari-filiformia, hyalina, continua. — *Hyalodermati, Globulinæ* et *Englerulæ* affinis.

1. **Saccardomyces bactridicola** P. Henn. l. c. — Maculis fuscis, rotundatis; perithecis cæspitosis vel singularibus, subglobosis vel ovoideis fuscis, ca. 140–150 × 110-120, contextu radiatim fibroso, subanhysto, subhyalino vel fusco, apice obtusis, dein apertis, poro periphysibus tenuissimis hyalinis prædito, basi hyphis repentibus, sparsis septatis, ramosis, flavo-brunneis, 2-3 μ. crassis; ascis fusoideis, apice tunicatis, acutiusculis, basi fasciculatis, 30-40 × 6-10, 8-sporis; paraphysibus fasciculatis v. basi ramosis, filiformibus, flexuosis, superantibus, ca. 1-1 ½ μ. crassis; sporidiis parallelis filiformi-aciculatibus, utrinque acutis, pluriguttulatis, 25–35 × 2-2 ½ μ. hyalinis. 1791

Hab. in foliis Bactridis spec., socia *Meliola*, Iquitos Rio Amazonas, Perù.

2. **Saccardomyces socius** P. Henn. l. c. t. V, f. 6. — Peritheciis superficialibus gregariis vel sparsis in mycelio Dimerii vel Asterinæ parasitantibus, ovoideis vel subglobosis, ca. 70–100 × 60-80 diam., contextu subanhysto, ex hyphis radiantibus, pallide fuscidulis, subpellucidis, vertice obtuse rotundatis, dein apertis, poro paraphysibus tenuissime filiformibus, basi hyphis repentibus, septatis ramosis, pallide fuscis 2–4 μ. crassis; ascis fasciculatis fusoideis vel subclavatis, 8-sporis, 18-30 × 6-8; paraphysibus filiformibus, flexuosis, hyalinis, ca. 1 μ. crassis; sporidiis parallelis, aciculari-filiformibus, curvulis, utrinque acutis, pluriguttulatis, 17-22 × 2–2 ½, hyalinis. 1792

Hab. in foliis Solani, socio *Dimerio Saccardoano, Asterina* etc., Leticia, Rio Amazonas, Perù.

Trib 4. **Perisporieæ** Sacc.

Sect. 1. **Hyalosporæ.**

ANIXIA Fr. — Syll. I, p. 84.

1. **Anixia Bresadolæ** v. Höhnel, Fragmente zur Mycologie 1903, p. 3. — Peritheciis sparsis, superficialibus, globosis, levibus, nitentibus, 1793

atro-brunneis. demum fere nigris, 120-200 μ. latis, in basi filamentis longissimis, repentibus, laxis, fuscescentibus instructis; ascis cylindraceis, valde tenuibus, 140 × 7-8; paraphysibus tenerrimis 3 μ. latis, ascos sæpe superantibus, septatis e cellulis 16 μ. long. formatis; sporidiis octonis, monostichis, continuis, hyalinis, 12-20 × 5-7, ellipsoideis uno latere subcompressis.

Hab. in ligno putri quercino, Frauenwart-Berg, prope Purkersdorf Australiæ inf. — Stat. ascoph. *Acrothecii Anixiæ* Höhnel.

2. **Anixia myriasca** v. Höhnel, Fragm. zur Mycologie 1903, p. 4. — 1794
Peritheciis sparsis, fimicolis, superficialibus, carbonaceis, fragilibus, contextu parenchymatico, ovoideis, conico-papillatis, astomis, levibus, c. 200 μ. crassis, atro-brunneis; ascis aparaphysatis, numerosissimis, hyalinis, tenerremis, octosporis, cylindraceis, supra obtusis, 50-60 × 4-5; sporidiis oblique monostichis, hyalinis, enucleatis, ellipticis, 4-4,5 × 2,5-3.

Hab. in fimo vaccino, ad montem Schneeberg loco Ochsenboden dicto Austriæ infer. — An *Anixiella*, nov. gen.? — Peritheciis conico-papillatis et ascis aparaphysatis a typo differt.

APIOSPORIUM Kunze — Syll. I p. 30, IX p. 375, XVI p. 408.

1. **Apiosporium sibiricum** Karst. Fung. nov. Loennb. 1904, pág. 5 1795
(Finska Vetensk. Soc.) — Mycelio præprimis in foliorum vivorum pagina inferiore petiolisque nascente acervulos effusos confluentes fuscos exhibente; peritheciis sphæroideis, 80-90 μ. diam.; sporidiis non visis.

Hab. in Spiræa palmata et Sanguisorba officinali in regione Baicalensi Listvinitschnoje, nec non prope Omsk Sibiriæ (O. A. F. Lönnbohm). — Hyphæ continuæ, simplices, 4-6 μ. crassæ. Peritheca immatura, ascis sporisque carentia.

Sect. 2. Phæosporæ.

MAGNUSIA Sacc. — Syll. I p. 38, XVI p. 1123.

1. **Magnusia Bartlettii** Mass. et Salm. Coproph. fungi, I, pag. 333, 1796
fig. 26. — Peritheciis sparsis superficialibus, globosis, nigris, 250-500 μ. diam., contextu parenchymatico e cellulis minutis polygonis distinctis, ca. 4 μ. latis composito, apice coma pilorum ornatis, pilis 8-12 rigidis simplicibus plus minus divergentibus, atro-fuscis levibus, sparse septatis, apice interdum flexuosis, basin versus circ. 6 μ. latis, perithecii diametro duplo vel triplo longioribus,

ceterum glabris; ascis numerosis, globosis, 18-20 μ. diam. v. oblongo-piriformibus 20-25 × 14-17, cito diffluentibus, 6-8-sporis; sporidiis ellipticis utrinque acutis, 8-10 × 5, primum hyalinis demum distincte dilute fuligineis.

Hab. in fimo Capreoli caprææ, Caviæ Cobayæ, Ovis Burrhel, O. Vignei, Kew Britanniæ.

ARACHNOMYCES Massee et Salmon, Coproph. fungi II p. 68 (1902) (Etym. ab *arachne* et *myces*). — Perithecia globosa, simplicia, astoma, membranacea, parenchymatica, appendicibus fuscis eumorphis instructa. Asci minuti, numerosi, globosi; sporidia primum conglobata, continua, fusca. — A *Pleuroasco* Mass. et Salm. subiculi defectu et appendicibus fuscis, a *Magnusia* Sacc. ascis globosis et sporidis conglobatis differt.

1. **Arachnomyces nitidus** Mass. et Salm. l. c. fig. 127-131. — Peri- 1797
thecis globosis 100-350 μ. diam., nigris, nudis, nitidis, tenui-membranaceis, fragilibus; contextu parenchymatico e cellulis polygonis irregularibus 5-10 μ. latis composito; appendicibus e parte perithecii inferiore orientibus, paucis, flexuoso-contortis, atro-fuscis 5-6 μ. latis nitentibus, semiopacis, septatis, perithecii diametro 5-7-longioribus, apice rectis v. simpliciter circinatis; ascis numerosissimis, subglobosis circ. 10 μ. diam., mox evanescentibus; sporidiis octonis primum conglobatis, sphæroideo-compressis, 3-4 × 2,5, fuscis.

Hab. in plantis putridis, Kew (C. Crossland), et in fimo murino, Thornton Hough, Cheshire Britanniæ.

2. **Arachnomyces sulphureus** Mass. et Salm. l. c. fig. 55-60. — Pe- 1798
ritheciis globosis 500-730 μ. diam., superficialibus, indumento sulphureo arcte adhærente obtectis, tenui-membranaceis, fragilibus; contextu parenchymatico e cellulis polygonis irregularibus, 5-10 μ. latis composito, basim versus appendicibus paucis flexuosis 5-6 μ. latis, perithecii diametro 3-4 longioribus, divergentibus, atro-fuscis, nitentibus, semiopacis, septatis, apice circinatis v. circinato-contortis, cinctis; ascis numerosissimis, minutis, globosis 7-8 μ. diam., mox evanescentibus; sporidiis sphæroideo-compressis 3-4 × 2,5, fuscis, octonis, conglobatis.

Hab. in nido vetusto Bombi spec. Kew Britanniæ.

PLEUROASCUS Mass. et Salm. — Syll. XVI p. 1123.

1. **Pleuroascus Nicholsoni** Mass. et Salm. Coproph. fungi I, p. 330, f. 25. 1799

— Peritheciis in subiculo pannoso distincto v. confluente, primum albo, deinde fuscescente ex hyphis delicatulis ramosis, intertextis, composito, plus minus immersis, dense gregariis parvis, 130-200 μ. diam., atris, fragilibus; contextu parenchymatico e cellulis distinctis 6–10 μ. latis composito; appendicibus pluribus e parte perithecii inferiore orientibus, hyalinis, arcte spiraliter convolutis, compressis, septatis; ascis numerosissimis, minutis globosis, 8 μ. diam., mox diffluentibus, in hyphis ramosis, dense glomerulatis; sporidiis octonis, conglobatis, globosis, minutis, circ. 3 μ. diam. fuligineis.

Hab. in fimo Caviæ Cobayæ, Kew Britanniæ (G. Nicholson).

ORBICULA Cooke — Syll. I p. 38, IX p. 378.

1. **Orbicula Richenii** Rick in Ann. Mycol. 1904, p. 245. — Stromate 1800
effuso, nigro, spongioso, usque 5 mm. crasso, hyphis fuligineis multiseptatis ramificantibus, laxe intertextis formato, ramulis 10 × 4 bifidis; peritheciis 350 μ. diam., rotundatis vel applanatis, atris, ad superficiem stromatis seriatim aggregatis, sæpe tectis; ascis cylindraceis, pedicellatis, p. spor. 16 μ. longis, 18 μ. latis, octosporis; sporidiis distichis, unilocularibus, ovoideis, hyalinis, dein obscurioribus, biguttulatis, 6 × 3.

Hab. parasitica in lignis a Nummularia spec. tectis et, ut videtur, eiusdem stromata occupans, S. Leopoldo Amer. Merid.

Sect. 3. Hyalodidymæ.

DIMEROSPORIUM Fuck. — Syll. I p. 51, IX p. 401, XI p. 257, XIV p. 466, XVI p. 408.

1. **Dimerosporium Andiræ** P. Henn. Fungi S. Paulenses I, in Hedw. 1801
1902, p. 107 (nec *D. meliolicola* Speg.). — Peritheciis sparsis in mycelio *Meliolæ* superficialibus, minutis, subglobosis, atris, basi hyphis repentibus, fuscis circundatis, contextu membranaceo, astomis, 60-70 μ. diam.; ascis clavatis, apice obtuse rotundatis, tunicatis, basi attenuatis, 20-30 × 8-12, octosporis; sporidiis subdistichis, oblonge ovoideis v. fusoideis, 1-septatis, constrictis, 6-8 × 3,5-4,5, hyalinis.

Hab. in foliis Andiræ spec., prope S. Paulo Brasiliæ.

2. **Dimerosporium Litseæ** P. Henn. in Engl. Jahrb. 1902, p. XXXII. 1802

p. 42. — Mycelio epiphyllo, crustaceo-effuso, atro; hyphis repentibus, ramosis, septatis; peritheciis sparsis, hemisphæricis, astomis, membranaceo-carbonaceis, 200–300 μ. diametro; ascis oblonge ovoideis vel clavatis, apice rotundatis, tunicatis, basi attenuatis, 4-8-sporis, 45-65 × 26-35; sporidiis subdistichis oblongis, medio 1-septatis, paulo constrictis, utrinque obtusis, 30-35 × 11-14, hyalinis.

Hab. in foliis Litseæ glaucæ in prov. Awa Japoniæ (S. Kusano).

3. **Dimerosporium cantareirense** Henn. in Hedw. 1902, pag. 298. — 1803
Peritheciis hypophyllis, gregariis vel epiphyllis sparsis, lenticulari-hemisphæricis, medio depressis, membranaceo-cellulosis, atris, hyphis repentibus, subsimplicibus septatis, 3-4 μ. cr., atro-fuscis circumdatis; conidiis ellipsoideis, utrinque obtuse rotundatis, atro-fuscis, medio 1-septatis, valde constrictis, granulosis, 12-16 × 6-8, cellulis subglobosis; ascis oblonge ovoideis, apice rotundatis, tunicatis, basi curvulis, octosporis 1-septatis, paullo constrictis, hyalino-fuscidulis, 13-16 × 4 5,5.

Hab. in foliis Myrsines cujusdam, S. Paulo Brasiliæ.

4. **Dimerosporium vestitum** Earle in New York Bot. Gard. 1902, 1804
p. 338. — Cæspitulis epiphyllis, nigris, effusis, sæpe confluentibus ex hyphis tenuibus, pallide brunneis, 3-4 μ. cr., compositis; conidiis subglobosis, sarciniformibus, 4-cellularibus, opacis, nigris, breve stipitatis, circ. 20 μ.; peritheciis nigro-brunneis, 85-100 μ. diam., contextu celluloso, ex hyphis brunneis, continuis vel parce septatis, 100–200 × 4-5 oriundis; ascis late clavatis, 35-40 × 8-10, paraphysibus filiformibus; sporidiis distichis vel irregulariter dispositis, constricto-ovatis, inæqualiter septatis, hyalinis, 3-guttulatis, 8 × 3-4.

Hab. in foliis vivis Baccharidis glomeruliforæ, Manatee Florida, Amer. bor. — Stat. conid. videtur affinis *Sarcinellæ heterosporæ*.

5. **Dimerosporium Gnaphalii** Henn. in Hedw. 1902, p. 297. — Ma- 1805
culis fuscidulis, rotundatis vel effusis; peritheciis sparsis vel gregariis epiphyllis, aterrimis, membranaceis, subhemisphæricis, rugulosis, pertusis, 70-100 μ. diam.; hyphis atro-fuscis ramosis, septatis, 3-4 μ. crassis, circumdatis; ascis clavatis, apice obtusis tunicatis, basi attenuatis-curvatis, 25-33 × 6-8, octosporis; paraphysibus filiformibus, hyalinis 2 μ. crassis; sporidiis subdistichis, fusoideis vel subclavatis, apice vel utrinque subacutiusculis, rectis, medio 1-septatis hyalinis, 7-8 × 2,5-3.

Hab. in foliis Gnaphalii spec., in horto botanico et Pedra Branca, S. Paulo Brasiliæ.

6. **Dimerosporium Clidemniæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 59. — Maculis mycelii stellato-radiatis vel rotundatis subcrustaceis, atris; hyphis variis usque ad 10 μ. crassis repentibus, atro-brunneis, pseudopodiis alternis ovoideis, atro-fuscis, ca. 20-25 × 10-14; peritheciis sparsis v. gregariis, ovoideis, membranaceo-cellulosis, atro-brunneis perforatis, ca. 80-100 μ.; ascis fasciculatis, paraphysatis, clavatis, apice tunicatis, rotundatis, 25-40 × 6-8; sporidiis subdistichis, clavatis, rectis vel curvulis, medio 1-septatis paulo constrictis, hyalinis, 8-10 × 3-3 $^1/_2$. 1806

Hab. in foliis Clidemniæ tibiifoliæ, Manáos Rio, Negro Brasiliæ.

7. **Dimerosporium cordiicolum** P. Henn. Fungi Amaz. III, 1904, p. 355. — Peritheciis epiphyllis, gregariis vel subsparsis, subglobosis vel ovoideis, membranaceo-cellulosis, atris ca. 50-80 μ.; hyphis repentibus fuscis, ramosis, septatis, 3-3 $^1/_2$ μ. crassis; ascis clavatis, rotundatis, 8-sporis, 25-35 × 14-17; sporidiis conglobatis v. subdistichis, ovoideis vel ellipsoideis, utrinque obtusis, medio 1-septatis valde constrictis, hyalinis, 12-15 × 7-8. 1807

Hab. in foliis Cordiæ, Rio Juruá, Juruá-Miry Amazoniæ.

8. **Dimerosporium amazonicum** P. Henn. Fungi Amaz. III, 1904, p. 355, cum icon. — Maculis mycelii epiphyllis rotundatis, atris, subcrustaceis; hyphis repentibus fuscis-ramosis, sæpe confluentibus, conidiis fusoideis vel clavatis, stipitatis, 2-5-septatis, fuscidulis, 30-40 × 8-10; peritheciis sparsis vel aggregatis, ovoideis vel subellipsoideis, atris, poro pertusis, contextu membranaceo-celluloso fusco-brunneo, ca. 80-100 μ. diam.; ascis fasciculatis, clavatis, apice obtusis, 8-sporis, 30-40 × 8-10; paraphysibus filiformibus, hyalinis ca. 1 $^1/_2$-2 μ. crassis; sporidiis oblique monostichis v. distichis, clavatis, 3-guttulatis, medio 1-septatis, subconstrictis, hyalino-cyanescentibus, 8-10 × 3-4. 1808

Hab. in foliis Bignoniaceæ cuiusd., Iquitos, Rio Amazonas Perù.

9. **Dimerosporium Synapheæ** P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. 96. — Syll. XVI, p. 1124 (nomen). — Mycelio crustaceo, subpulvinato, atro; hyphis septatis, castaneis, brevibus; conidiis subovoideis, 1-septatis, atro-castaneis, 10-13 × 10; peritheciis lenticularibus, depressis, atris; ascis clavatis, apice obtuse rotundatis, tunicatis, basi attenuatis, curvulis, octosporis, 40-50 × 14-20; spori- 1809

diis distichis vel conglobatis, oblonge ovoideis 1-septatis, haud constrictis, hyalino-fuscidulis, 10–15 × 6–7.

Hab. in foliis vivis Synapheæ polymorphæ, Perth Australiæ occid.

10. **Dimerosporium Manihotis** P. Henn. Fungi Amaz. III, 1904, p. 354. 1810
(Hedwigia). — Maculis epiphyllis, gregariis, angulatis, flavidis; peritheciis hypophyllis in cæspitulis gregariis rotundato angulatis v. confluentibus, ovoideis, atris, apice subpapillatis, 60-80 μ, contextu celluloso, brunneo-fusco, basi hyphis ramosis, brunneolis, 3-5 μ.; ascis subclavatis, apice tunicatis, rotundatis vel subacutiusculis, curvulis, 8-sporis, 28-35 × 8–10; sporidiis subdistichis v. conglobatis, oblonge ovoideis vel clavatis, obtusis, medio 1-septatis, vix constrictis, hyalino-cyanescentibus, 9–13 × 3–3 $^1/_2$.

Hab. in foliis Manihot, Rio Juruá Forteleza Amazoniæ.

11. **Dimerosporium hyptidicolum** P. Henn. Fungi Amaz. III, 1904, 1811
p. 354. — Maculis mycelii epiphyllis atris, effusis; peritheciis sparsis vel aggregatis, subglobosis, obtusis, atro-fuscis, ca. 80-100 μ. diam., basis hyphis repentibus, septatis, fuscis; ascis oblonge clavatis, obtusis, tunicatis, 8-sporis, ca. 25-35 × 6-10; sporidiis obliquo monostichis vel subdistichis, ovoideis v. clavatis, obtusis, medio 1-septatis vix constrictis, hyalino-cyanescentibus, 7–10 × 3 $^1/_2$-4.

Hab. in foliis Hyptidis, Rio Negro, Manáos Amazoniæ.

12. **Dimerosporium? bauhinicolum** P. Henn. Fungi Amaz. III, 1904, 1812
p. 355. — Mycelio radiato effuso hypophyllo arachnoideo, atro-fusco; hyphis repentibus, ramosis, fusco-brunneis, 3-5 μ. crassis; conidiis variiformibus, ellipsoideis, ovoideis vel oblongis, 2-4-septatis, 15-30 × 6-10; peritheciis sparsis v. aggregatis, ovoideis v. subglobosis celluloso-membranaceis, fusco-brunneis, ca. 100-120 × 80–100 μ.; ascis clavatis, apice tunicatis, rotundatis, basi sæpe curvulo-substipitatis, 8-sporis, 50–60 × 20-25; sporidiis subdistichis v. conglobatis oblonge ovoideis vel ellipsoideis, obtusis, medio 1-septatis, constrictis, hyalinis, 20-26 × 7-10.

Hab. in foliis Bauhiniæ, Rio Juruá Juruá–Miry Amazoniæ

NEOREHMIA v. Höhnel, Fragmente zur Mycologie 1903, p. 1 (Etym. ab insigni mycologo et lichenologo doctore Henrico Rehm). — Perithecia sessilia, libera, globosa, subcarnosa, ex olivaceo nigrescentia, pilis rigidis ornata, ostiolo nullo v. obsoleto. Paraphyses parcæ; asci clavati, octospori; sporidia hyalina, e cellulis binis, globosis, facile jamque ipso in asco se separantibus formata.

1. **Neorehmia ceratophora** v. Höhnel l. c. — Peritheciis sparsis, globo- 1813
sis, minutis, 120–160 μ. latis, ex olivaceo nigrescentibus, subcarnosis, tenuibus, ubique pilis non septatis, rigidis, brevibus, 20-25 × 2-3, vel simplicibus vel apice magis minusve denticulatis vel ramosis obtectis; ostiolo nullo v. obsoleto; paraphysibus parcis, filiformibus; ascis tenuissimis, clavatis, 40–45 × 4–6 octosporis; sporidiis subdistichis vel oblique monostichis, oblongis, 4 × 2, hyalinis, e cellulis binis, globosis, facile jamque ipso in asco se separantibus formatis.

Hab. in ligno putrido Carpini?, Viehöferin Austriæ inferioris.

Sect. 4. Phæodidymæ.

DIMERIUM Sacc. et Syd. — Syll. XVI p. 410 (ut subgenus) (Etym. *dis* bis et *meros* pars, ob sporidia bilocularia). — A *Dimerosporio* differt sporidiis coloratis nec hyalinis. — Huc spectant plures species jam huic postremo generi relatæ, nempe: *Dimerium Fumago* (Niessl), *D. Psilostomatis* (Thüm.), *D. oligotrichum* (Mont.), *D. Langloisii* (E. et M.), *D. Ulei* (Wint.), *D. imperspicuum* (Speg.), *D. lateritium* (Speg.), *D. Passiflorœ* (Pat.), *D. Monninœ* (Pat.), *D. Richardii* (Thüm.), *D. Barnadesiœ* (Pat.), *D. spectabile* (Pat.), *D. moniliferum* (Pat.), *D. Labiatarum* (Pat.), *D. Gilgianum* (P. Henn.), *D. secedens* Sacc., *D. minutum* (Pat.), *D. Magnoliæ* (T. et E.), *D. baccharidicolum* (P. Henn.), *D. Englerianum* (P. Henn.), *D. Forsteroniæ* (P. Henn.), *D. hamatum* P. et Sacc., *D. pangerangense* (P. Henn.), *D. tasmanicum* (Massee), *D. occultum* (Rac.).

1. **Dimerium orbiculatum** (Mc Alp.) Sacc. et D. Sacc. *Dimerosporium* 1814
orbiculatum M. Alp. in The Linn. Soc. of N. S. Wales, 1903, pag. 97. — Maculis numerosis, orbicularibus, fuligineo-nigris, epiphyllis, interdum confluentibus, 2-3 mm. diam; hyphis pallide olivaceis, circ. 7 μ. cr., ramulosis; conidiis concoloribus, 1-septatis, paullo constrictis, 15-17 × 8-9, pucciniæformibus; ascis clavatis, sessilibus, superne rotundatis, octosporis, 95–105 × 24-28; paraphysibus hyalinis, filiformibus, superne ramosis, asco subæquilongis; sporidiis distichis ad basim monostichis, olivaceis, subovalibus, 1-septatis, superne rotundatis, 30-35 × 10-11, cellula superiori crassiori.

Hab. in foliis vivis Grevilleæ Victoriæ in Victoria Australiæ.

2. **Dimerium erysiphinum** (P. Henn.) Sacc. et D. Sacc. *Dimerospo-* 1815
rium erysiphinum P. Henn. in Ergebn. der Kunene Sambesi Expedit. p. 164 (1902). — Mycelio hypophyllo effuso, radiante albo,

subsericeo, submembranaceo, dein flavo-ferrugineo, e filis septatis, ramosis, primo hyalinis dein fuscescentibus, ca. 5–18 μ. cr.; peritheciis aggregatis, subglobosis, astomis, atro-brunneis, ca. 150–180 μ. diam.; ascis ovoideis v. subclavatis, vertice crasse tunicatis, basi curvatis, 65–75 × 30–45, 4-8-sporis, subdistichis v. conglobatis oblongis v. ovoideis subclavatis, rectis v. curvulis, utrinque rotundatis, medio 1-septatis vix constrictis, flavo-fuscidulis, 30–45 × 14–18.

Hab. in foliis Copaiferæ Baumianæ, Kusisi prope Likise Afr. austr.

3. **Dimerium parasiticum** (Starb.) Sacc. et D. Sacc. *Dimerosporium parasiticum* Starb. in Arkiv. för Botan. 1904, Band 2, p. 11. — Mycelio in hyphis hyphopodiis præditis melioloideis partim parasitante, subiculum membranaceum, orbiculariter expansum, vage determinatum, griseo-fuscum formante, hyphis ramulosis, septatis, fere hyalinis 2,5–3 μ. latis composito; peritheciis hinc inde sparsis, paullum aggregatis, appendicibus longe repentibus, fuscis, ramosis, septatis, circa 5 μ. cr. ornatis, globulosis v. ovato-globulosis, textura membranacea nigricantibus, 65–75 μ. diam. vel 70 × 44; ascis paucis, sessilibus, ovoideis vel ovoideo-oblongatis, sursum incrassatis, 32-40 × 15-18; sporidiis octonis, conglobatis, clavulatis, medio septatis, non constrictis, sursum obtusatis, deorsum acutiuscule attenuatis, primo hyalinis, denique fuscescentibus, 17-21 × 4-5; conidiis ex hyphis mycelii orientibus, clavulato-oblongis, 1-3-septatis, plerumque longe et hyaline pedicellatis, fuscis, usque ad 19 × 6,5 (25 μ. long. cum append.). 1816

Hab. in silva primæva Poaia, Matto-Grosso Brasiliæ (Lindman). — *D. imperspicuum* Speg. sporidiis elliptico-subovatis aliis notis exceptis differt.

4. **Dimerium paulense** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium paulense* Henn. in Hedw. 1902, pag. 297. — Maculis fuscidulis indeterminatis vel obsoletis; peritheciis amphigenis, sparse gregariis, lenticularibus, atro-membranaceis, cellulosis, medio depressis perforatis, 160–200 μ. diam.; hyphis fasciculatis, 3–4 μ. cr., septatis, fusco-atris, radiantibus circumdatis; conidiis subclavatis, rectis v. curvulis, ca. 4-5-septatis v. ovoideo-incurvatis, 12-15 × 10-12, 5-6-septatis, fusco-atris; ascis clavatis, apice obtusis, crasse tunicatis, brevissime stipitatis, octosporis, 35–45 × 10-14; sporidiis fusoideis vel subclavatis, apice acutiusculis, medio 1-septatis, constrictis, chlorino-olivaceis, 15-20 × 3-4. 1817

Hab. in foliis Baccharidis spec., Serra da Cantareira, pr. S. Paulo Brasiliæ.

5. **Dimerium gardeniicolum** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium gardeniicola* P. Henn. F. japon. IV, in Bot. Jahrbücher v. XXXI, 1902, p. 739. — Amphigenum; mycelio atro-brunneo ex hyphis repentibus, ramosis, 3,5–5 μ. cr., pseudopodiis subalternis, ovoideis vel subglobosis, atro-fuscis, 8-12 × 7–10; peritheciis ovoideis, membranaceis, apice papillatis, pertusis, lovibus, viridulo-atris, 1-2 asciferis, 45-60 × 40-50, basi setulis simplicibus, atris, 60-120 × 4-6 circumdatis; ascis ovoideis, obtusis, 20-35 × 20-30, aparaphysatis, octosporis; sporidiis conglobatis, ellipsoideis 1-septatis valde constrictis, 14-18 × 7-9, olivaceis v. viridulo-atris, cellulis subglobosis. 1818

Hab. in foliis Gardeniæ floridæ, Tosa Japoniæ.

6. **Dimerium Macarangæ** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium Macarangæ* P. Henn. in Engl. Bot. Jahrb. 1903, pag. 45. — Mycelio hypophyllo, effuso, atro; hyphis repentibus, fuscis, ramosis, septatis, 3-4 μ. cr.; conidiis oblonge fusoideis, flavofuscis, continuis, 2-3-guttulatis, 8-12 × 2,5-3; peritheciis sparsis vel gregariis, ovoideis, ca. 60-80 μ. diam., fusco-membranaceis, pertusis; ascis clavatis, apice rotundatis, tunicatis, basi attenuato-subpedicellatis, octosporis, aparaphysatis, 45-55 × 13-17; sporidiis subdistichis, clavatis vel subfusoideis, utrinque obtusis, medio 1-septatis, constrictis, 2-4-guttulatis, læte brunneis, 10-15 × 3,5-4. 1819

Hab. in foliis Macarangæ spec., Ost Usambara Africæ orient. (Engler).

7. **Dimerium Saccardoanum** P. Henn. Fungi Amaz. III, 1904, p. 356, cum icon. — Maculis mycelii plerumque epiphyllis, gregarie sparsis, rotundato-angulatis, atris, 1-2 mm. diam. interdum confluentibus; peritheciis aggregatis vel subsparsis, subglobosis, sicco collapsis, atris, rugulosis, membranaceo-cellulosis, ca. 70-110 μ. diam., basi hyphis ramosis, fuscis, 3–5 μ. crassis; ascis clavatis, apice rotundatis, subtunicatis, 8-sporis, 40-50 × 7-10, paraphysatis; sporidiis subdistichis v. oblique monostichis, clavatis, rectis v. subcurvulis, medio 1-septatis, constrictis, brunneo-fuscis, 10-14 × 3 ½-4. 1820

Hab. in foliis Solani, Leticia, Rio Amazonas Perù.

8. **Dimerium olivaceum** Syd. Ann. Mycol. 1904, p. 169. — Mycelio amphigeno, repente, ex hyphis brunneis septatis simplicibus usque 200 μ. longis et ca. 5 μ. crassis composito; peritheciis globosis, gregariis, atris, 100-210 μ. diam., astomis, parte inferiore hyphis mycelii obsessis; conidiis 1-4-septatis, brunneis, variabilibus; ascis 1821

cylindraceo-clavatis. apice rotundatis, 48-62 × 9-16 μ., breviter stipitatis, octosporis; sporidiis distichis vel oblique monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio 1-septatis, non constrictis, initio hyalinis, mox olivaceo-virescentibus, tandem olivaceo-brunnescentibus, 11-18 × 5½-9.

Hab. in foliis vivis Cynoctoni nummulariifolii in Andibus Valdivianis (T. W. Negee).

9. **Dimerium Lepidagathis** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1822
Lepidagathis P. Henn. in Ergebn. der Kunene Sambesi Expedit. p. 164 (1902). — Peritheciis gregariis superficialibus minutis, lenticularibus v. subglobosis membranaceis, atris, ca. 60-100 μ. diam., basi hyphis atris setulosis repentibus 3,5-5 μ. cr. conidiophoris cinctis; conidiis ovoideis, fuscis, 1-septatis; ascis clavatis, apice obtusis, 30-40 × 12-15, octosporis, paraphysatis; sporidiis oblonge ovoideis, medio 1-septais, vix constrictis, 12-15 × 3,5-4, olivaceo-fuscis.

Hab. in foliis Lepidagathis macrochilæ inter Longa et Lazingua Afr. austr.

10. **Dimerium Scheffleri** (P. Henn.) Sacc. et D. Sacc. *Dimerosporium* 1823
Scheffleri P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. XXVIII, p. 37. — Epiphyllum, gregarium, atrum, pulvinatum; hyphis repentibus, effusis, 3-5 μ. cr., atro-brunneis; peritheciis subglobosis dein collabentibus, atris, astomis, 120-160 μ. diam.: ascis clavatis, obtusis, octosporis, 50-70 × 9-12; sporidiis subdistichis vel monostichis, ellipsoideo-ovoideis, medio 1-septatis vix constrictis, atro-brunneis, 11-15 × 4-4,5.

Hab. in foliis Loranthi Schelei, Usambara Afr. orient. (Scheffler).

11. **Dimerium microcarpum** (Starb.) Sacc. et D. Sacc. *Dimerosporium* 1824
microcarpum Starb. in Arkiv. för Botan. 1904, Band 2, pag. 11, fig. 22-23. — Peritheciis mycelio hyalino v. interdum obscuriore in Meliola parasitante passim insidentibus, sphæroideis, astomis, tenuiter membranaceis, cellulis polygonis, minutis, 75-100 μ. diam.; ascis oblongatis vel cylindraceo-oblongatis, nodulosim stipitatis, sursum rotundatis, 26-28 × 8-11,5; sporidiis octonis, conglobatis vel fere distichis, oblongato-ovoideis, medio septatis, constrictis, utrinque rotundatis, loculo superiore cylindraceo-rhomboideo, breviore et latiore, inferiore cylindrico, primo hyalinis, deinde olivaceis, plerumque bi-guttulatis, 9-10 × 4-5; paraphysibus nullis.

Hab. in silva primæva parasitice in Meliola mattogrossensi, Poaia, Matto-Grosso Brasiliæ (Lindman).

12. **Dimerium bactridicolum** P. Henn. Fungi Amaz. IV, in Hedw. 1903, p. 59. — Peritheciis hypophyllis in mycelio atrofusco Meliolæ, subglobosis, basi hyphis repentibus atrofuscis circumdatis, ca. 80-100 μ. diam., contextu membranaceo-celluloso, brunneo-fusco; ascis clavatis, apice rotundatis subtunicatis, 8-sporis, 30-40 × 7-10; paraphysibus basi fasciculatis vel ramosis, filiformibus, hyalinis, ca. 1 $^1/_2$ μ. crassis; sporidiis subdistichis, ovoideo-clavatis, utrinque obtusis, medio 1-septatis, paulo constrictis, 2-guttulatis, primo hyalinis, dein brunneis, 8-11 × 3 $^1/_2$-4. 1825

Hab. in foliis Bactridis in Meliola iquitosensi parasitica, Iquitos, Perù.

PARODIELLA Speg. — Syll. I p. 717, IX p. 409, XI p. 260, XIV p. 469, XVI p. 412.

1. **Parodiella baccharidicola** P. Henn. Fungi Amaz. III, Hedw. 1904, pag. 359. — Peritheciis epiphyllis gregariis, plerumque paginam totam occupantibus, subglobosis vel ovoideis, obtusis, sicco collabentibus, atris, subrugulosis, ca. 150-180 μ. diam., basi hyphis paucis, fuscidulis; ascis clavatis, apice rotundatis, 8-sporis, 80-100 × 17-19; paraphysibus hyalinis, mycelioideis, ca. 1 $^1/_2$ μ. crassis; sporidiis subdistichis, oblonge fusoideis vel ellipsoideis, curvulis vel rectis, utrinque obtusis, plerumque 2-guttulatis, medio 1-septatis paulo constrictis, 18-25 × 7-9, olivaceo-fuscis. 1826

Hab. in foliis Baccharidis spec. Tarapoto, Perù.

2. **Parodiella Bauhiniarum** P. Henn. Fungi Amaz III, Hedw. 1904, p. 359, c. ic. — Maculis mycelii subrotundatis angulatis v. effusis, atris, hypophyllis; peritheciis dense gregariis subovoideis, apice obtusis, sicco collabentibus, atris, subcoriaceo-membranaceis, subrugulosis, 80-110 μ. diam., basi hyphis sparsis, flavo-fuscidulis, ca. 3-4 μ. crassis circumdatis; ascis late clavatis, apice tunicatis, rotundatis, 8-sporis, 35-50 × 16-20; paraphysibus hyalinis, filiformibus, 1 $^1/_2$-2 μ. crassis; sporidiis conglobatis vel subdistichis, ovoideis vel clavatis, rectis vel subcurvulis, obtusis, medio 1-septatis, constrictis, primo hyalinis dein olivaceo-atris, 15-22 × 5-6. 1827

Hab. in foliis Bauhiniæ longipetalæ et Bauhiniæ spec. Rio Juruá, Juruá-Miry Amazoniæ.

3. **Parodiella Negeriana** Syd. Ann. Myc. 1904, p. 169. — Peritheciis 1828

hypophyllis, sine maculis, gregariis, subinde magnam folii partem v. totam ejus superficiem æqualiter tegentibus, minutissimis, punctiformibus, atris; ascis globoso-ovatis, brevissime stipitatis, octosporis, 28-39 × 19-31; sporidiis tristichis, constricto-didymis, utrinque rotundatis, ex hyalino fuscis, 15-20 × 6½-9.

Hab. in foliis vivis Berberidis linearis, Chile (F. W. Neger).

4. **Parodiella tarapotensis** P. Henn. Fungi Amaz. III, Hedw. 1904, p. 360. — Maculis mycelii hypophyllis, effusis, atris villoso-arachnoideis; hyphis erectis v. repentibus, atro-fuscis, 3-5 μ. crassis, ramosis, septatis, pseudopodiis alternis v. oppositis, subovoideis v. clavulatis, ca. 10-20 × 10; conidiis clavatis v. fusoideis 3-4-septatis, flavo-brunneis, ca. 30 × 5; perithe ciis gregariis, minutis, subovoideis, apice subpapillatis, atris, parenchymatico-cellulosis, ca. 70-110 μ.; ascis clavatis, apice crasse tunicatis, rotundatis, basi subpedicellatis, curvulis, 8-sporis, 60-80 × 18-20; sporidiis conglobatis v. subdistichis, hyalino- vel flavido-fuscidulis, clavatis, 2-guttulatis, medio deinde 1-septatis, an constrictis?, 20-26 × 8-9. 1829

Hab. in foliis Pithecolobii Saman, Tarapoto Rio Hualiaga Perù. — « An hæc et sequens potius *Dimerii* species? ».

5. **Parodiella setulosa** P. Henn. Fungi Amaz. III, Hedw. 1904, p. 357 cum icon. — Maculis mycelii epiphyllis gregarie sparsis vel confluentibus, minutis, aterrimis crustaceis; setulis rigidis erectis; hyphis ramosis, torulosis, confluentibus, olivaceo-fuscis, interdum subviridulis, ca. 4-7 μ. crassis; setulis atro-fuscis, acutis v. obtusis usque ad 300 × 10; perithe ciis aggregatis vel sparsis, ovoideis, fusco-olivaceis, membranaceo-cellulosis, obtusis, 70-100 × 60-80; ascis oblonge ovoideis vel subellipsoideis, vertice crasse tunicatis, rotundatis, 8-sporis, 50-60 × 20-25; sporidiis conglobatis oblonge ovoideis vel ellipsoideis, primo hyalinis, 2-guttulatis, dein medio 1-septatis, constrictiusculis, fusco-brunneolis, 20-25 × 8-11. 1830

Hab. in foliis Olyræ, Tarapoto, Rio Huallaga Perù.

6. **Parodiella? manaosensis** P. Henn. Fungi Amaz. III, Hedw. 1904, p. 358 c. ic. — Maculis fuscis rotundatis vel confluentibus; perithe ciis hypophyllis gregariis, ovoideis, rugulosis; atris, subcarbonaceo-coriaceis, ca. 180-220 μ.; hyphis repentibus, ramosis, fusco-brunneis, 5-9 μ. crassis; conidiis oblonge clavatis vel fusoideis, primo flavidis, 1-septatis, dein læte brunneis, 3-septatis 40-60 × 15-20; ascis clavatis, crasse tunicatis rotundatis, 8-sporis, 120-150 × 35-45; sporidiis conglobatis vel subdistichis, oblonge clava- 1831

tis utrinque rotundatis, primo flavis dein læte brunneis, continuis (an semper?) 40-50 × 13-15.

Hab. in foliis Solanaceæ? cujusdam, Rio Negro, Manáos Amazoniæ.

Sect. 5. Hyalophragmiæ.

ZUKALIA Sacc. — Syll. IX p. 431, XI p. 268, XVI p. 416.

1. **Zukalia Stuhlmanniana** P. Henn. in Engl. Bot. Jahrb. 1903, p. 46. 1832
— Mycelio crustaceo effuso, atro, paginam foliorum omnino obducente; hyphis repentibus, fuscis, ramosis, septatis, 3-6 μ. cr.; conidiis oblonge ellipsoideis, bi-guttulatis, continuis, 10-17 × 4-5; peritheciis sparsis vel gregariis subhemisphæricis vel subglobosis 80-100 μ. diam., setulis 5-8, rigidis, suberectis, atris, acutis, 80-250 × 3-5 vestitis, contextu atro-celluloso; ascis clavatis, apice rotundatis, crasse tunicatis, 35-45 × 10-13, octosporis, aparaphysatis; sporidiis subdistichis vel conglobatis, oblonge cylindraceis, utrinque obtuse rotundatis, crasse 3-septatis, 13-16 × 3,5-7, hyalinis.

Hab. in foliis Cocoës nuciferæ, Phœnicis dactyliferæ, Revenalæ madagascariensis, Dar-es-Salam, Zanzibar Africæ orient. (Stuhlmann).

2. **Zukalia juruana** P. Henn. Fungi Amaz. III, 1904, p. 367 cum 1833
icone (Hedwigia). — Peritheciis epiphyllis membranaceis, globosis, obtusis, atro-cellulosis, ca. 80-120 μ., basi mycelio fusco septato, effuso; ascis fasciculatis, clavatis, apice tunicatis, rotundato-obtusis, basi attenuatis, 8-sporis; paraphysibus filiformibus, flexuosis, hyalinis, guttulatis, ca. 1 ½ μ. crassis; sporidiis oblique monostichis v. subdistichis, subclavatis, obtusis, tunicatis, 2-septatis, grosse 3-guttulatis, hyalinis, 9-10 × 3.

Hab. in foliis Hyptidis, Humaytha, Rio Juruá Amazoniæ. 1834

3. **Zukalia sesxpora** Starb. in Arkiv. för Botan. 1904, Band 2, p. 10.
— Peritheciis minutis, mycelio evanido hyphopodiophoro insidentibus, membranaceis, astomis, atratis, circ. 100 μ. diam.; setis nullis; ascis obovatis vel late cylindraceis, nodoso-stipitatis, sursum rotundato-tunicatis, 28-38 × 6,5-9; sporidiis senis, conglobatis v. fere distichis, oblongatis vel clavulato-oblongatis, utrinque obtusatis, primo 4-guttatis, medio constrictulis, denique spurie 3-septatis, hyalinis, 11,5-12,5 × 4-5; paraphysibus latiusculis, hyalinis, guttulatis.

Hab. in foliis in silva primæva Poaia, Matto Grosso Brasiliæ (LINDMAN).

PERISPORIOPSIS P. Henn. in Hedw. 1904, p. 83 (Etym. a *Perisporio*, cui affinis). — Perithecia ovoidea, perforata, membranacea, subatra, in mycelio fibroso, subcrustaceo, maculiformi, fusco. Asci clavati, octospori aparaphysati. Sporidia oblonge fusoidea 3-7-septata, subhyalino-flavescentia. — *Perisporio* affinis, sed sporidiis subpallidis haud fatiscentibus. Forte ad hoc genus spectat *Apiosporium brasiliense* Noack — Syll. XVI, p. 408.

1. **Perisporiopsis Struthanthi** P. Henn l. c. — Mycelio effuso, fusco maculiformi; hyphis septatis, ramosis, fusco-brunneis, 4-8 μ. crassis; peritheciis superficialibus submembranaceis sparsis vel gregariis, ovoideis, vertice obtusis, pertusis, subviolascentibus, subpilosis 250-300 × 200-250, contextu parenchymatico, atro-fusco; ascis late clavatis, apice crasse tunicatis, vix pedicellatis, octosporis, 80-140 × 25-40; sporidiis subdistichis v. oblique monostichis, oblonge fusoideis, utrinque obtusiusculis, primo 1-3 deinde 7-septatis, haud constrictis, hyalinis vel subflavidulis, 60-65 × 12-15. 1835

Hab. in foliis Struthanthi spec. Serra dos Orgaos, Rio de Janeiro Brasiliæ (C. ULE).

Sect. 6. Phæophragmiæ.

PERISPORIUM Fr. — Syll. I p. 55, IX p. 412, XI p. 260.

1. **Perisporium mendozanum** Speg. in An. Soc. Cient. Arg. 1899, p. 227. — Peritheciis superficialibus, subiculo cinerescente pulverulento araneosulo cinctis, semiglobosis, atris, 500-750 μ. diam., 300-500 μ. alt., astomis, levibus, glabris, fragilibus, contextu imperspicuo; ascis cylindraceis 140-150 × 9-10, apice obtuse rotundatis, basi breviter attenuato-pedicellatis, aparaphysatis, octosporis; sporidiis monostichis, cylindraceis, rectis vel curvulis, 18-20 × 5-8, utrinque obtusis, 3-septatis, ad septa valide constrictis, loculis demum secedentibus, obscure fuligineis. 1836

Hab ad spinas Opuntiæ aoracanthæ, in deserto circa Mendozam Argentinæ. — Species eximia a genere ascis cylindraceis nonnihil recedens.

2. **Perisporium Myristicæ** P. Henn. F. javanici novi, in Hedw. 1902, p. 141. — Cæspitulis pulvinato-subhemisphæricis v. sublenticula- 1837

ribus, rugoso-verrucosis, atris, ca. 1-2 mm. diam., ex hyphis peritheciisque aggregatis constantibus; hyphis fuscis septatis 3-5 μ. cr. v. moniliformi-torulosis, atro-fuscis, 4-5 μ. diam.; peritheciis membranaceis, subglobosis, pertusis 50-80 μ. diam.; ascis ovoideis v. oblonge ellipsoideis, haud stipitatis, apice rotundatis, octosporis, 20-30 × 9-13; sporidiis conglobatis, subclavatis vel subfusoideis, castaneis, 3-septatis, constrictis, utrinque obtusis, 10-15 × 3,5-4.

Hab. in foliis vivis Myristicæ spec., Buitenzorg Javæ. — Vita parasitica ascisque sessilibus a generis typo recedit, hinc in subgenus proprium (*Perisporiella* P. Henn.) potius locanda species.

PERISPORINA P. Henn. Fungi Amaz. III, 1904, pag. 357 (Etym. a *Perisporio*, cui affinis). — Mycelium arachnoideo-floccosum, hyalino-fuscum. Perithecia subglobosa, membranacea, astoma. Asci ovoideo-clavati, 8-spori. Sporidia cylindraceo-clavata, 3-septata fusca. — *Meliolæ* et *Perisporio* affinis.

1. **Perisporina manaosensis** P. Henn. l. c. — Mycelio hypophyllo 1838
effuso, hyalino dein fusco, arachnoideo-floccoso: hyphis ramosis, septatis, hyalinis vel fuscis, 3-6 μ. crassis; conidiis fusoideis, curvatis, utrinque acutis, 4-guttulatis vel 3-septatis, sparsis vel aggregatis, hyalinis 18-22 × 5-6; peritheciis gregarie sparsis, subglobosis vel subovoideis, apice pertusis, membranaceo-cellulosis, atris, 150-180 μ.; ascis late clavatis, apice tunicatis rotundatis, 8-sporis, 80-110 × 30-40; sporidiis conglobatis, oblonge clavatis, apice applanatis vel subrotundatis, 2-septatis, vix constrictis, 60-80 × 10-12 μ., fuscidulis.

Hab. in foliis Leguminosæ, Manáos Rio Negro Amazoniæ. 1839

2. **Perisporina Rehmii** (Syd.) Sacc. et D. Sacc. *Apiosporium Rehmii* Sydow in Rehm Ascom. exs. n. 1573, Ann mycol. 1904, p. 520. — Peritheciis tenuiter parenchymaticis, brunneolis, 150 μ. alt., 120 μ. lat., levibus, mycelio brunneo insidentibus; mycelii hyphis ramosis, septatis, breve articulatis, 5-7 rarius usque 20 μ. cr., apicibus sæpe ascendentibus, obtusis conidiophoris; conidiis oblongis 4-6-cellularibus, obtusis, rectis 20-25 × 6; ascis ramoso-paraphysatis, ovato-clavatis, apice acutatis incrassatisque, breve stipitatis, 8-sporis, 70-80 × 20-25; sporidiis oblongo-clavatis, apice rotundatis, 2-3-stichis, 2-4- dein 6-cellularibus, medio constrictulis, brunneis, 27-30 × 10-12, strato mucoso 3 μ. cr. obductis.

Hab. in foliis (aliisque partibus?) Baccharidis discoloris, Serra do Itatiaia Rio de Janeiro, c. 1200 m. alt., Brasiliæ.

MELIOLA Fr. emend. — Syll. I p. 60, IX p. 413, XI p. 260, XIV p. 470, XVI p. 413.

1. **Meliola Cookeana** Speg. — Syll. I, p. 65. — var. **Saccardoi** Syd. 1840
Ann. Mycol. 1904, p. 170. — Forma setis apice acutiusculis; sporidiis paulo majoribus, 40-48 × 14-18. Adsunt hyphopodia copiosa tam mucronata quam capitata.

Hab. in foliis Litseæ mollis, in Andibus pr. Villarica, Chile (F. W. Neger). — forma **Duvauæ** Sacc. et Syd. l. c. — A præcedente var. differt subiculis parcioribus et præcipue hyphopodiis mucronatis rarioribus. In foliis vivis Duvauæ dependentis, Concepcion in Chile (F. W. Neger).

2. **Meliola fusco-pulveracea** Rehm, Hedw. 1901, p. 162. — Maculis 1841
hypophyllis, dilutissime nigrescentibus, arachnoideis, circ. 5 mm. diam.; peritheciis gregariis, sessilibus, globosis, astomis, verruculosis, 60-90 μ. diam., ad basim hyphis radiantibus permultis, simplicibus, rectis, interdum undulatis, obtusis, fuscis, septatis, raro breviter conjugatis, 300-600 × 5, obsessis: hyphopodiis et setis plane deficientibus; ascis evanidis; sporidiis oblongis vel clavulatis, obtusis 2-3-septatis, cellula suprema interdum majore, fusca, episporio crasse verruculoso, ad septa subconstrictis, 21-30 × 9.

Hab. ad folia fruticis, Ouro Preto in Brasilia (Ule).

3. **Meliola buddleyicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 1842
p. 61. — Maculis mycelii epiphyllis, gregarie sparsis, rotundato-angulatis, atris, 1-2 mm. diam.; hyphis repentibus, atro-fuscis, septatis, ramosis, pseudopodiis alternis, ovoideis, 1-septatis, 12-18 × 7-8 v. corniformibus, 15-22 × 4-6, atrofuscis; peritheciis sparsis vel cæspitosis, inermibus, subglobosis, sicco collabentibus, atrofuscis, membranaceo-cellulosis, pertusis, 100-160; ascis ellipsoideis vel ovoideis 2-4-sporis; sporidiis cylindraceis, utrinque obtusis, 4-septatis, constrictis, atrofuscis 25-32 × 7-10.

Hab. in foliis Buddleyæ spec. Tarapoto, Rio Huallaga Brasiliæ.

4. **Meliola Lippiæ** Maublanc in Bull. Soc. Myc. de France 1903, fasc. 3, 1843
p. 291. — Mycelio maculas orbiculares, nigras, tomentosas efficiente, ex hyphis atrofuscis 8-9 μ. crassis composito; hyphopodiis capitatis alternantibus, 26-30 × 10-12. cellula superiore ovoidea; setis in mycelio numerosis, nigris, opacis, uncinatis, obtusis, 10 μ. crassis; peritheciis aggregatis, globosis, nigris, verruculosis, 125-220 μ. diam.; ascis obovatis bisporis; sporidiis ellipticis 4-septatis, ad septa constrictis, obtusis, atro-fuligineis, 26-30 × 12-14.

Hab. in pag. superiore foliorum Lippiæ sp. Dahomey Guineæ inf. (Le Testu).

5. **Meliola iquitosensis** P. Henn. Fungi Amaz. III, 1904, p. 361 (Hedw.). 1844
— Maculis mycelii epiphyllis, rotundato-angulatis v. effuso-confluentibus, atris, subcrustaceis, setulosis; hyphis repentibus, ramosissimis, brunneo-fuscis; conidiis fusoideis, 3-septatis, fuscis, 30–40 × 5-7, setulis erectis apice obtuse rotundatis, fusco-atris usque 180 × 4-5 μ., septatis; peritheciis sparsis vel gregariis ovoideis apice rotundato-obtusis, fuscis, atro-cellulosis, 150–180, μ. ad basim setulis erectis, rigidis, obtusis, atris, septatis, 4-5 μ. crassis; ascis clavatis, tunicatis, subrotundatis, 8-sporis, 60–80 × 18-25; sporidiis conglobatis cylindraceo-fusoideis, 3-septatis, fuscis, utrinque rotundatis, cellulis externis subpapillatis, pallidioribus, 25-35 × 6-8.

Hab. in foliis Palmæ cujusdam, Iquitos, Rio Amazonas Bras.

6. **Meliola Laguncullariæ** Earle in Muhlenbergia 1901, p. 11. — Am- 1845
phigena, maculas nigras, orbiculares 3,5 mm. diam. sæpe quoque ampliores formans; mycelii hyphis 4–6 μ. cr., obscure et remotiuscule septatis, laxis, pelliculam arcte adhærentem, tenuem formantibus; hyphopodiis capitatis, distantibus alternatis, divaricatis, tenuibus 12–16 μ. longis, capitulo oblongo, ovoideo, subinde subirregulari, 8–12 × 6-7; hyphopodiis mucronatis, rarioribus, alternis vel oppositis, 16 × 4, sursum tenuatis, apice obtuso; setis nullis; peritheciis sparsis, globosis, non collabentibus 150 μ. diam., ostiolo indistincto, superficie processibus conicis 12 × 8-12 asperata; ascis mox evanescentibus (non observatis); sporidiis ovoideis, læte fuscis, æqualiter 4-septatis, utrinque rotundatis, 32 × 12.

Hab. in foliis vivis Laguncullariæ racemosæ, Mayaguez, Portorico. — Affinis *Mel. glabræ,* a qua differt mycelio tenuissimo, hyphopodiis sporidiisque minoribus.

7. **Meliola manaosensis** P. Henn. Fungi Amaz. III, 1904, pag. 366, 1846
cum icone (Hedwigia). — Mycelio hypophyllo, effuso, radiato, crustaceo, aterrimo; hyphis ramosis, septatis, fuscis, 3-6 μ. crassis; hyphopodiis alternantibus, capitatis, ca. 20-30 × 10-15, fusco-atris; conidiis fusoideis v. 5-septatis, atrofuscis, apice hyalino-papillatis 40-50 × 7-8; peritheciis sparsis ovoideis vel subglobosis, vertice obtusis, ca. 240-280 μ. atris, basi setulis rigidis erectis atris, obtusis 250-300 × 8 vestitis; ascis clavatis, apice tunicatis, subobtusis vel acutiusculis, basi breve stipitatis, 8-sporis, 80-100 × 25–35; sporidiis subdistichis v. conglobatis, oblonge cylindraceis, 5-septatis, constrictis, 35-40 × 10-12, fusco-atris.

Hab. in foliis Mauritiæ Martianæ, Manáos, Rio Negro Amazoniæ.

8. **Meliola sakawensis** P. Henn. in Hedw. 1904, p. 141. — Mycelio 1847
effuso paginam superiorem tegente, atro, tenui crustaceo; hyphis repentibus, septatis, ramosis, atro-fuscis, hyphopodiis plerumque alternantibus, ovoideis, 15-20 × 10-15; peritheciis sparsis vel gregariis, lenticularibus, atris, rugosis, setulis sparsis, septatis, apice obtusis, atro-fuscis usque ad 250 μ. longis, 4-5 μ. crassis; ascis ellipsoideis, plerumque bisporis, 30-40 × 20-25; sporidiis cylindraceis, utrinque rotundatis, 4-septatis, constrictis, atro-fuscis 20-33 × 8-13.

Hab. in foliis Clerodendri trichostomi, Tosa, Sakawamachi Japoniæ (Yoshinaga).

9. **Meliola larviformis** P. Henn. Fungi Amaz. III, 1904, p. 362. cum 1848
icon. (Hedwigia). — Maculis interdum hypophyllis, rotundatis gregariis, ca. 1-2 mm. diam., atris; hyphis radiantibus, ramosis usque ad 8 μ. crassis, atro-fuscis, pseudopodiis alternantibus, subovoideis, stipitatis, ca. 20-25 × 12-18, atro-fuscis; peritheciis sparsis vel subaggregatis, lenticularibus, atris, 140-170 μ. diam., basi appendiculis subcylindraceis, larviformibus pallide fuscescentibus, concentrice subannulatis, apice curvatis, obscurioribus 60-100 × 15-25; ascis 2-sporis, ellipsoideis, ca. 35-55 × 20-30; sporidiis cylindraceis, utrinque rotundatis, 4-septatis, constrictis, 30-45 × 10-16, atris.

Hab. in foliis Lobeliaceæ cujsd., Rio Juruá et in foliis Acalyphæ spec. Tarapoto, Perù.

10. **Meliola Stuhlmanniana** P. Henn. in Engl. Bot. Jahrb. 1903, p. 45. 1849
— Mycelio epiphyllo, interdum hypophyllo, atro-violaceo, maculas subcrustaceas, rotundatas, ambitu radiatas efficiente; hyphis repentibus, atro-vinosis vel fuscis 4-8 μ. cr., septatis, ramosis, pseudopodiis alternis subpedicellatis, ovoideis, ca. 15-20 × 12-15; peritheciis subglobosis vel hemisphæricis, ca. 200-250 μ. diam., setulis (5-10) rigidis, crassis, atro-vinosis, apice obtusis, haud septatis, ca. 100-150 × 4-7, contextu cellulis rotundato-polyhedricis; ascis oblonge ellipsoideis, utrinque obtusis rotundatis, 3-4-septatis, constrictis, atro-fuscis 35-45 × 13-18.

Hab. in foliis Acridocarpi, Dar-es-Salam, Zanzibar Africæ orient. (Stuhlmann).

11. **Meliola juruana** P. Henn. Fungi Amaz. III, 1904, p. 365 cum 1850
icon. (Hedwigia). — Maculis effusis atris, sæpe paginam superiorem omnino tegentibus; hyphis effusis, ramosis, rufo- vel fusco-

atris, pseudopodiis alternantibus vel suboppositis, stipitato-capitatis, ca. 10-12 µ. vel rostratis; peritheciis gregarie sparsis, ovoideis obtuse rotundatis vel collabentibus, rugulosis, atris, ca. 150-180 µ., basi appendiculis rigidis, apice dichotomis vel repetito dichotomis, atris, ca. 150-200 ≈ 8-10 atris, ramis divergentibus apice pellucidis rotundato-incrassatis v. incisis; ascis ovoideis v. oblonge ellipsoideis, 2- vel 3-sporis; sporidiis cylindraceis, utrinque rotundatis, 4-septatis, constrictis, 32-40 ≈ 10-15, atris.

Hab. in foliis Lonchocarpi Ulei, Marary, Rio Juruá Amazoniæ.

12. **Meliola Ipomœæ** Earle in Muhlenbergia 1901, p. 10. — Epiphylla, maculas minutas 1 mm. diam., irregulariter rotundatas vulgo confluentes, brunneas formans; mycelio parco; hyphis ramosissimis tenuibus, circ. 7 µ. cr., septatis; hyphopodiis capitatis, copiosis 16-20 µ. long., regularibus, capitulo globoso 10-12 µ., cellula basilari 4-8 ≈ 6-7, angulo acuto inserta, setis copiosis, rectis vel abrupte basi curvatis, fuscis, crebre septatis 250-300 ≈ 7, apice 4 µ. cr., obtuso integro, subhyalino; peritheciis paucis, 2-4 in singula macula, 120-160 µ. diam. nigris, collabentibus, obscure ostiolatis, contextu parenchymatico cellulis hexagonis 12 µ. diam; ascis late ovoideis vulgo 4-sporis mox evanescentibus; sporidiis compressis, ovoideis e latere cylindraceis, utrinque rotundatis, subæqualiter 4-septatis non vel vix constrictis, 35 ≈ 14 ≈ 8, fusco-olivaceis, subdiaphanis, cellula quarta paullulo latiore. 1851

Hab. in foliis viventibus Ipomœæ prope Mayaguez, Portorico. 1852

13. **Meliola asterinoides** Wint. — Syll. IX, p. 423. — var. **Psychotriæ** P. Henn. Fungi Amaz. III, 1904, p. 361, cum icone (Hedwigia). — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, ca. 300-350 µ. diam., radiato-cellulosis, asterinoideis, atris, margine hyphis radiantibus, pseudopodiogenis circumdatis, pseudopodiis alternantibus, ovoideis; ascis ellipsoideis, 2-sporis, 35-45 ≈ 20-25; sporidiis cylindraceis, utrinque rotundatis, 4-septatis, constrictis, 30-38 ≈ 10-14.

Hab. in foliis Psychotriæ, Manáos Rio Negro Amazoniæ.

14. **Meliola autumnalis** Syd. Ann. Myc. 1904, p. 169. — Amphigena, sæpius epiphylla, immaculans; mycelio tenui, radiato-reticulato, ex hyphis repentibus ramosis anastomosantibusque septatis, fuscis ca. 7 µ. crassis, hyphopodia stipitata 1-septata clavato-capitato 18-30 µ. longa gerentibus composito; peritheciis globosis, rugulosis, atris, 175-200 µ. diam., sparsis vel hinc inde paucis aggregatis; 1853

ascis ovato-clavatis, mox diffluentibus, 2-4-sporis; sporidiis oblongis, rectis v. leniter curvulis, utrinque rotundatis, 3-septatis, non constrictis, ex hyalino tandem brunneis, 35-42 × 11-14.

Hab. in foliis vivis Gei chilensis, Concepcion in Chile frequens (F. W. Neger).

15. **Meliola manihoticola** P. Henn. Fungi Amaz. III, 1904, p. 364, cum icone (Hedwigia). — Maculis mycelii epiphyllis, gregarie sparsis, rotundatis, radiatis, atris 1-2 mm. diam., hyphis repentibus, ramosis atro-fuscis ca. 3-6 μ. crassis; pseudopodiis alternantibus v. oppositis, pedicellato-capitatis vel rostratis; peritheciis sparsis vel subaggregatis, subglobosis, atris, cellulosis, ca. 120-170 μ., basi setulis rigidis pluriseptatis, apice subhamatis, obtuse incrassatis fusco-brunneis, ca. 100-220 × 6-8; ascis oblonge ellipsoideis vel ovoideis, 2-3-sporis, 35-45 × 20-23; sporidiis cylindraceis, obtusis, 4-septatis, constrictis, atro-fuscis, 25-35 × 8-11. 1854

Hab. in foliis Manihot utilissimæ, Rio Juruá Juruá Miry, Marary et Manáos Amazoniæ.

16. **Meliola Panici** Earle in Muhlenbergia 1901, p. 12. — Maculas minutas, 1-3 mm. diam., vulgo confluentes formans; mycelii hyphis 6-8 μ. cr., parce ramosis, septatis, hyphopodiis capitatis vulgo alternis et valde divaricatis 16-20 × 6-8, capitulo latiore quam longiore, irregulari, vulgo 3-4-lobo; hyphopodiis mucronatis copiosis, oppositis, angulo recto insertis doliiformibus, læte fuligineis, 12 μ. longis; setis numerosis, rectis, apice indiviso, obtuso, obscure septatis, opacis, 400-600 × 8-10; peritheciis sparsis, nigris non vel vix collabentibus 150-200 μ. diam., non ostiolatis; ascis ovoideis 3-4-sporis, mox evanescentibus; sporidiis compressis, 4-septatis, leviter constrictis, utrinque rotundatis, 40 × 12 × 8. 1855

Hab. in foliis Panici latifolii, Santurce Portorico. — Ab affinibus *M. amphitricha* et *M. tenui* satis diversa hyphopodiis lobatis et setis indivisis.

17. **Meliola mattogrossensis** Starb. in Arkiv. för Bot 1904, Band 2, pag. 10. — Mycelio primo maculas orbiculares efficiente demum late repente confluente, totam paginam superiorem folii fere obtegente, etiam hypophyllo, hyphis ramosis anastomosantibus, hyphopodiis alternantibus v. sæpissime oppositis dense obsessis formato; hyphopodii cellula apicali 10 × 6,5 vel 7 μ. diam., pedali 3,8-6,5 μ. alt.; peritheciis adspersis vel gregariis lenticulari-sphæroideis demum patellariter collapsis, verruculosis, setis mycelialibus similibus ornatis, membranaceis, atratis, 200 μ. diam.; setis myce- 1856

lialibus numerosis, erectis vel basi arcuato-procumbentibus, parce septatis, fuscis, apice acutatis vel rarissime et brevissime bi-trifurcatis, usque ad 400 μ. longis, ramulis inæquilongis; ascis jam resorptis; sporidiis oblongatis, utrinque rotundatis 4-septatis, constrictulis, fuscis, 34-37 ≈ 14-15.

Hab. in foliis vivis in silva primæva Poaia, Matto Grosso Brasiliæ.

18. **Meliola Piperis** Earle in Muhlenbergia, 1901, p. 12. — Maculas densas, nigras 5–10 mm. latas facile secedentes formans; mycelii hyphis densis, rectis v. curvis, 6-8 μ. d. septatis; hyphopodiis capitatis, alternis v. oppositis, minutis, brevibus, divaricatis, capitulo globoso 8 μ. cr., cellula basali 4 μ. diam.; hyphopodiis mucronatis non visis; setis copiosis, cylindricis, non tenuatis, opacis, rarius septatis, 150–200 ≈ 6–8, semel vel ter dichotome ramosis, ramis primariis divaricatis 20-25 μ. longis, ultimis brevibus, acutis; peritheciis copiosis, non ostiolatis, non vel vix collabentibus 150 μ. diam., contextus cellulis minutis 4–6 μ. diam.; ascis ovoideis, mox evanescentibus, 2-(vel 4?)-sporis; sporidiis cylindricis subæqualiter 4-septatis, leviter constrictis, utrinque obtusis, 35 ≈ 10. 1857

Hab. in foliis Piperis adunci, prope Mayaguez, Portorico.

19. **Meliola rubicola** P. Henn. in Hedw. 1904, p. 140. — Maculis sparse gregariis, atris, rotundatis, minutis, plerumque 1–2 mm. diam., radiantibus; hyphis repentibus, ramosis, septatis, fuscis; hyphopodiis alternis, late clavatis, plerumque applanatis, 15–20 ≈ 10-14 fuscis; peritheciis paucis, hemisphærico-pulvinatis, atro-castaneis ca. 160–200 μ.; ascis ovoideis vel ellipsoideis, 2-3-sporis, 36–48 ≈ 20–25; sporidiis cylindraceis, utrinque rotundatis, 3-septatis, paullo constrictis, olivaceo-atris, 30–43 ≈ 11–15. 1858

Hab. in foliis Rubi rosifolii, Tosa Japoniæ (Yoshinaga).

20. **Meliola Anacardii** A. Zimm. in Centr. fr. Bakter. 1902, II Abt. VIII, pag. 151. — Mycelio epiphyllo, maculas orbiculares atras 1-1,5 mm. diam. efficiente; hyphis adpressis 6-7 μ. cr., opposito-ramosis; hyphopodiis alternis oblongis, basi septatis, articulo superiori 16 ≈ 8; setis circa perithecia indivisis, apice cristatis, usque 250 ≈ 6; peritheciis atris globosis, 100–160 μ. diam.; ascis fugacibus bisporis; sporidiis ovoideo-cylindraceis, utrinque rotundatis, constricto-4-septatis, levibus, saturate olivaceo-brunneis, 40-44 ≈ 18, e latere compressis, 12 μ. cr. 1859

Hab. in foliis Anacardii occidentalis culti in hortis Buitenzorg Javæ.

21. **Meliola anomala** Tracy et Earle in Bull. of the Torr. bot. Club. 1860
1901, p. 184. — Mycelio plagulas rotundatas epiphyllas, sericeas, nigras, 2-5 mm. diam. griseo-cinctas efficiente, ex hyphis brunneis, opacis, septatis 8 μ. diam. composito; conidiophoris? fere hyalinis, tenuibus, ramosis circ. 4 μ. diam.; conidiis non visis; hyphopodiis capitatis, sæpe dense stipatis, subrotundis, levibus 16 × 12, raro subangulosis, cellula stipitis 6 × 6 μ.; hyphopodiis mucronatis non visis; setis mycelii copiosis, intense brunneis, sæpe septatis 200-300 μ. long., basi 7 μ. cr., apice 4 μ. cr.; peritheciis sparsis 200 μ. diam.; cellulis contextus 8 μ.; ascis clavatis vel obovatis, pedicellatis, fasciculatis, octosporis 100 × 20-40; sporidiis valde clavatis, fuligineis 4-septatis, 40-45 μ. long. superne 12 μ. crassis, inferne 4 μ. cr.

Hab. in foliis vivis Perseæ spec. Palma Sola, Fla. Amer. bor.

22. **Meliola Willoughbyæ** A. Zimm. in Bull. de l'Inst. bot. de Buitenz. 1861
1901, p. 23. — Maculis amphigenis subrotundis, 10 mm. diam.; mycelio arachnoideo ex hyphis 7-8 μ. cr., opposite ramosis composito; hyphopodiis alternis, nigris, cellula inferiore 5 μ. longa, superiore 15-20 × 8-12; peritheciis globosis, rugosis 120-160 μ. diam.; ascis bisporis; sporidiis ovoideis, 4-septatis, brunneo-nigris 40-45 × 16-18.

Hab. in foliis Willoughbyæ firmæ, Buitenzorg in insula Java.

23. **Meliola exilis** Syd. Ann. Mycol. 1904, p. 170. — Amphigena, 1862
sæpius hypophylla; mycelio tenui, effuso, parce evoluto, ex hyphis repentibus ca. 6-7 μ. crassis ramosis nodulosis brunneis, hyphopodia stipitata alternantia, irregularia, apice capitata, sæpe irregulariter bi-triloba gerentibus composito; peritheciis paucis, sæpius solitariis, globulosis, atris, 175-230 μ. diam.; ascis ovato-ellipsoideis, ca. 70 × 28-35, 2-4-sporis; sporidiis subfusoideis, 3-septatis, non constrictis, plerumque leniter curvatis, utrinque acutiusculis, ex hyalino brunneis, 46-54 × 12-14.

Hab. in foliis vivis Gaultheriæ spec. in Andibus ad lacum Quillen ad fines chilenses et argentinos.

24. **Meliola echinus** P. Henn. Fungi Amaz. III, 1904, p. 363 cum 1863
icon. (Hedwigia). — Peritheciis hypophyllis sparsis, subovoideis, rotundatis, collapsis, atro-fuscis, ca. 200 μ. diam., appendicibus cylindraceis, rectis v. apice curvulis, pallide fuscidulis ca. 100-200 × 10-20 dense squarrosis; hyphis mycelii sparsis, flavo-fuscis vel atrofuscis; hyphopodiis subalternantibus, capitatis, atrobrunneis,

15-30 × 10-15; ascis oblongis, 2-sporis; sporidiis cylindraceis, 4-septatis, atro-fuscis, constrictis, utrinque obtusis, hyalino-subpapillatis, 40-52 × 16-20.

Hab. in foliis Coussapoæ, Rio Juruá, Juruá-Miry Amazoniæ.

25. **Meliola Cyperi** Pat. in Gaill. Monogr. Gen. Mel. p. 70 cum ic. — 1864
Syll. XI, p. 263. — forma **italica** Sacc. Notæ Mycol. in Syd. Ann. Mycol. 1903, p. 24, D. Sacc. Myc. ital. n. 1022. — A typo vix recedit setulis apice acutissimis; sporidia utrinque obtusula, 4-septata, 40-47 × 14-18, atro-fuliginea; hyphopodia oblongo-obovata 30 × 11-12, uniseptata, rarius 2-3-septata.

Hab. in foliis languidis v. emortuis Cladii Marisci, in paludibus Meolo (Venezia) Italiæ borealis. Detexit Antonia Saccardo-Vanzetti. — Prima typica species *Meliolæ* in Europa reperta!

26. **Meliola atricapilla** Starb. in Arkiv. for botan. 1904, band 2, p. 9, 1865
fig. 19-21. — Plagulis epiphyllis, orbiculariter vel varie, pro ratione distincte, (sub lente dendritice) determinatis, discretis, rarissime confluentibus, ob setulas velutinis, aterrimis; mycelii perithecigeri hyphis 9-10 μ. cr., hyphopodiis 25-31 × 12-15, alternantibus obsessis, obscure fuligineis, confluentibus, crustam densissime setigeram efficientibus; hyphopodiis bilocularibus, clavato-oblongis; setis erectis, rigidis, continuis, ad basim arcuatis, apice acutatis 250-300 × 8-12; peritheciis inter setas absconditis, gregariis, paucioribus, sphæroideis, verruculosis vel rugosiusculis, textura membranacea, nigris, 250-300 μ. diam.; ascis ovatis, sessilibus, bisporis 70 × 30, trisporis 76-90 × 35-40; sporidiis binis vel ternis, ellipsoideis, utrinque rotundatis, 4-septatis, constrictulis, ex hyalino olivascentibus 48-50 × 19-21.

Hab. in foliis vivis in silva primæva, Colonia Elisa, Paraguay (Lindman).

27. **Meliola cornu-capræ** P. Henn. Fungi Amaz. III, 1904, (Hedwi- 1866
gia) p. 362. — Maculis mycelii truncicolis rotundato-pulvinatis vel effusis, atro-crustaceis; hyphis repentibus, ramosis, atris, 5-8 μ. crassis; pseudopodiis ovoideis, clavatis vel rostratis; peritheciis sparsis vel aggregatis, lenticularibus, atris, ca. 300 μ. diam., basi appendiculis cylindraceis, corniformibus, apice obtuse involutis, obscurioribus, pallide fuscidulis, concentrice annulatis, ca. 80-150 × 25-35 μ.; ascis 2-sporis, oblongis, ca. 70 × 35; sporidiis cylindraceis, obtuse rotundatis, 4-septatis, constrictis, 50-60 × 20-25, atris.

Hab. in caule Euphorbiaceæ cujusdam, Rio Juruá, Juruá-Miry Amazoniæ.

28. **Meliola Negeriana** Syd. Ann. Mycol. 1904, p. 170. — Amphigena, plerumque epiphylla; maculis orbiculatis, velutinis, atris, crassis, 1-4 mm. diam., margine definite limitatis; peritheciis aggregatis, globulosis, 175-320 μ. diam., atris, inter setas rigidas erectas numerosissimas brunneas apice parum dilutiores ca. 7 μ. crassas nidulantibus; ascis late clavatis, 2-4-sporis, 75-105 × 24-35; sporidiis cylindrico-oblongis, utrinque rotundatis, rectis, 3-septatis, ex hyalino mox brunneis, ad septa leniter constrictis, 50-63 × 14-17. 1867

Hab. in foliis Lomatiæ obliquæ in Chile, frequens.

Sect. 6. Dictyosporæ.

ZUKALIOPSIS P. Henn. Fungi Amaz. III, 1904, p. 367 (Etym. a *Zukalia*, cui affine genus). — Perithecia superficialia, mycelio effuso, fusco circumdata, submembranacea, atra, subastoma. Asci subovoidei, 8-spori; sporidia cylindraceo-oblonga vel clavata, pluriseptata, muralia, hyalina. *Zukaliæ* affinis sed sporidia murali-divisa.

1. **Zukaliopsis amazonica** P. Henn. l. c. — Peritheciis amphigenis, gregariis, ovoideis vel subglobosis, submembranaceis vel subcarbonaceis, apice obtusis subastomis, atris, rugulosis, ca. 120-140 μ.; basi hyphis repentibus, fuscis, septatis, ramosis, 3-4 μ. crassis; conidiis sparsis, fusoideis, apiculatis, 3-septatis, constrictis, fuscis, ca. 20 × 4 ½; ascis ovoideis, crasse tunicatis, basi breve curvato-stipitatis, 8-sporis, 20-30 × 15-25; sporidiis conglobatis oblonge clavatis vel subcylindraceis, rectis vel curvulis, 4-5-septatis, interrupte muralibus, hyalinis, 15-20 × 4-5. 1868

Hab. in foliis Sapindaceæ cujusd. (Paullinia?) Iquitos, Rio Amazonas Perù.

PLEOMELIOLA Sacc. — Syll. I p. 70 (ut subgenus) et XIV p. 17 (Etym. *Pleo*, breviatio *Pleosporæ* et *Meliola*, ob sporidia muralia). — Est *Meliola* sporidiis septato-muriformibus, fuscis.

1. **Pleomeliola Hyphænes** P. Henn. in Engl. Bot. Jahrb. 1903, p. 46. — Maculis gregariis, rotundatis, atro-sanguineis vel fuscis, centro pallidulis, exaridis, ca. 5-10 mm. diam., hyphis brevibus, ramosis, septatis, 3-4 μ. cr., brunneis; conidiis oblonge clavatis vel fusoideis, erectis, 4-9-septatis, vix constrictis, ferrugineis, apice obtusis vel subacutis, subhyalinis, 40-80 × 7-10; peritheciis gregariis, subglobosis, rugulosis, apice perforatis, 80-120 μ. diam., membrana- 1869

ceo-cellulosis, ferrugineis; ascis ovoideis, apice rotundatis, truncatis, octosporis 25–36 × 17–23 aparaphysatis; sporidiis conglobatis, oblonge cylindraceis vel subclavatis, utrinque obtusis, 4–5-septatis, interrupte muriformibus, hyalinis, dein fuscidulis, 10-15 × 3,5–4,5.

Hab. in foliis Hyphænes spec., Dar-es-Salam, Zanzibar Africæ orient. (Stuhlmann),

Trib. 5. **Capnodieæ** Sacc.

CAPNODIOPSIS Henn. in Hedw. 1902, pag. 299 (Etym. a *Capnodio*, cui affinis). — Mycelium fuscum, sparsum. Perithecia subcoriacea, subglobulosa, vertice elongato-cornuta, atra, apice rotundato aperta. Asci ovoidei v. subglobosi, tunicati, octospori. Sporidia subglobosa, continua, hyalina vel dilute fuscidula.

1. **Capnodiopsis mirabilis** Henn. l. c. — Peritheciis hypophyllis, gre- 1870
garie sparsis, basi hyphis fuscidulis, septatis, sparsis 3–4 μ. crassis circumdatis, subglobosis vel depressis, atro-fuscis, rugulosis 60–80 μ. diam., vertice vel lateraliter elongato-cornutis, cornu cylindraceo, curvato, atro-fusco, 100–160 μ. longo, 20–30 μ. crasso, apice flavido, pluri-annulato, primo rotundato clauso, dein late aperto; ascis ovoideis vel subglobosis, crasse tunicatis, 25-28 × 20-25, octosporis; sporidiis conglobatis ovoideis vel subglobosis, continuis, intus minute granulatis, hyalinis vel dilute fuscidulis 7–10 × 6-8.

Hab. in foliis vivis Compositæ cujusdam, Serra da Cantareira, S. Paulo Brasiliæ.

CAPNODIUM Mont. — Syll. I p. 73, IX p. 438, XI p. 270, XIV p. 476.

1. **Capnodium Anonæ** Pat. Bull. Soc. Mycol. 1904, p. 135. — Epi- 1871
phyllum, effusum, nigrum, crustaceo-pelliculosum, sæpe totam foliorum superficiem occupans, facillime dilabens; mycelio brunneo, ramoso, toruloso, ex articulis subglobosis vel cylindraceis 10-15 × 6-10 formato; conidiis stellatim 3-4-locularibus, *Triposporio* similibus, pallide brunneis; peritheciis pycnidicis erectis usque ad 400 μ. altis, cylindraceis, gracilibus 25 μ. cr., ramosis, membranaceis, sursum obtuse attenuatis, poro pertusis, longe stipitatis; peritheciis ascigeris coriacellis, ovoideo-inflatis apice obtusis pertusisque 150 × 100, longe ramoso-stipitatis; ascis ovoideis 60 × 25, 4-6-sporis; sporidiis ellipsoideo-elongatis, primo hyalinis, medio

1-septatis constrictisque, dein fuscis, 5-6-septatis, septis longitudinalibus 1-2.

Hab. in foliis vivis Anonæ squamosæ in insulis Gambier Polynesiæ Gallicæ. [Anonaceæ]

2. **Capnodium brasiliense** Puttemans, Bull. Soc. Mycol. 1904, p. 153, t. X, f. 1-10. — Effusum, atrum, totam superficiem paginæ superioris tegens; mycelii hyphis polymorphis, olivaceo-fuligineis, cellulis inæqualibus septo constrictis, 6 10 μ. lat. vel subcylindraceis, regularibus 3 μ. cr.; pycnidiis 250-300 μ. longis, rectis vel parte superiore paullum inclinatis, parte inferiore 50 μ. lata, dein circa medium subito coarctatis et usque ad apicem cylindricis vel breviter attenuatis, 11-13 μ. diam. sup.; sporulis rectis, cylindricis hyalinis, 4-5 × 1,5-2; peritheciis gregariis varia magnitudine 35-60 μ. diam., nunc sed rarius pycnidio connexis et ex hujus parte inflata productis plus, minusve sphæricis, sed pedicello cylindrico plus minus longo 30-40 μ. lato suffultis, apice aperto vix prominente 4-5-dentato; ascis forma valde variabili sed semper basi attenuatis, modo obovalibus, modo parte media fortiter incrassatis 30-35 × 11-26; sporidiis 4-8, inordinatis, primo hyalinis dein olivaceo-fuligineis, 3-septatis, obovalibus, loculo pænultimo incrassato 13-16 × 5. 1872

Hab. in foliis Coffeæ arabicæ, Sao Paulo Brasiliæ. — Status conidici sistunt *Coniothecii, Cladosporii, Brachysporii, Torulæ, Triposporii* species.

LIMACINIA Neger — Syll. XIV p. 474, XVI p. 1127.

I. *Eu-Limacinia.* Sporidia transverse septata.

1. **Limacinia Aurantii** P. Henn. in Hedw. 1902, p. 298. — Mycelio atro, effuso, crustaceo-membranaceo, ex hyphis repentibus, atro-fuscis, septatis, 4-7 μ. cr.; conidiis pleurogenis, singularibus, pluriseptatis, fuscis, subulatis vel quadriradiatis, radiis subulatis vel fusoideis, atro-fuscis, 60-100 × 10-12, pluriseptatis plus minus constrictis; peritheciis sparsis, subhemisphæricis, membranaceo-cellulosis v. subcoriaceis, atro-fuscis, 180-200; ascis clavatis, apice rotundatis, tunicatis, octosporis 50-60 × 20-25; sporidiis conglobatis, fusoideis, utrinque obtusiusculis vel subacutis, 3-septatis, vix constrictis, 20-30 × 5-7, hyalino-fuscidulis. 1873

Hab. in foliis Citri Aurantii, S. Paulo Brasiliæ.

2. **Limacinia Castilloæ** (Zimm.) Sacc. et Syd. — Syll. XVI, p. 1128 1874

(nomen). — *Antennaria Castilloæ* A. Zimm. in Bull. Inst. Bot. Buitenz. X, 1901, p. 14. — Mycelio epiphyllo, ex hyphis fuliginosis nigris formato; peritheciis rotundis, nigris, setosis 190-230 μ. diam.; ascis octosporis, clavatis, 100 μ. longis; sporidiis 3-septatis, initio hyalinis dein brunneolis, fusiformibus, 45-50 × 12.

Hab. in foliis Castilloæ elasticæ, ab Iceryæ specie invasis, in horto culturali, Buitenzorg, in insula Java.

3. **Limacinia setosa** (Zimm.) Sacc. et D. Sacc. *Antennaria setosa* A. 1875
Zimm. Centr. f. Bakter. 1902, VIII, p. 151. — Mycelio epiphyllo, crustas atras formante; peritheciis globosis, setis nonnullis sursum versis, atro-brunneis, prope ostiolum pallidioribus vestitis, 70-90 μ. diam.; setis 100 × 6 (basi); ascis 8-sporis, clavatis, 40 μ. longis; sporidiis 4-cellularibus, oblongis, utrinque obtusis, cellulis binis unius apicis latioribus et brevioribus, hyalinis, tandem forte brunneolis 20-25 × 4-5; paraphysibus non observatis.

Hab. in foliis Coffeæ hybrid. cujusdam, a Pulvinaria Bidii vexatis, in hortis Buitenzorg Javæ. — Spectat cum præc. et seq. spec. ad Sect. II generis (peritheciis setosis). Cfr. Syll. XIV, p. 475.

4. **Limacinia coffeicola** Puttemans, Bull. Soc. Mycol. 1904, pag. 153, 1876
tab. X, f. 11-13. – Peritheciis subglobosis fuligineis, astomis, conoideis, apice subtruncatis, setis atro-fuligineis simplicibus continuis usque 100 × 3-4, superne et inferne subhyalinis basisque incrassatis parte superiore præditis; ascis aparaphysatis, versiformibus, plerumque elongatis 50-75 × 15-20; sporidiis hyalinis subfusoideis, initio continuis, triguttatis, dein 4-septatis, in asco inordinatis, 15-18 × 5-6.

Hab. in foliis Coffeæ arabicæ, in horto botanico Sao Paulo Brasiliæ.

5. **Limacinia tangaensis** P. Henn. in Engl. Bot. Jahrb. 1903. p. 47. 1877
— Mycelio crustaceo atro, late effuso paginam foliorum obducente; hyphis repentibus, ramosis, septatis, atro-fuscis, sæpe torulosis, usque ad 8 μ. cr.; peritheciis sparsis, ovoideis, subglobosis vel oblongis ca. 80-100 × 60-80, contextu membranaceo-celluloso; ascis ovoideis vel clavatis, vertice rotundatis, tunicatis, 4-sporis, 25-40 × 10-20, aparaphysatis; sporidiis conglobatis, oblonge cylindraceis vel clavatis, utrinque obtusis, 5-septatis, constrictis, hyalinis, 16-25 × 4-5.

Hab. in foliis Mangiferæ indicæ, Tanga, Zanzibar Africæ orient. (Stuhlmann).

II. *Limacinula* Sacc. Sporidia murali-divisa.

6. **Limacinia javanica** (Zimm.) Sacc. et D. Sacc. *Capnodium javanicum* A. Zimm. Centralbl. f. Bakter. 1902, VIII, p. 151. — Mycelio crustam nigram facile secedentem, totam foliorum paginam super. obtegentem formante, e cellulis brunneolis formato; peritheciis liberis sessilibus, globosis, breve papillatis, nigris, nitidis, 100–160 μ. diam.; ascis 8-sporis, sessilibus; sporidiis ovoideis, murali-divisis, hyalinis, 40–50 × 10–16; paraphysibus nullis. 1878

Hab. in foliis Coffeæ libericæ (a Lecanio viridi vexatis) in horto Buitenzorg Javæ. — Ob perithecia globulosa est *Limaciniæ* spec., sed ob sporidia hyalodictya potius novum genus (*Limacinula*).

III. Species incertæ sedis.

7. **Limacinia? alaskensis** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 34, pl. IV, fig. 1. — Effusa, superficialis, densa, opace atra, subpannosa, 2-4 cm. longa, 500-750 μ. cr.; hyphis mycelii hormiscioideis, filiformibus, simplicibus v. furcatis, 400–500 × 16-18, crebre septatis, ad septa constrictis, articulis globoso-cuboideis, 15–20 × 13-15, subinde latioribus quam longis, fuligineis, plerumque parietali-1-guttatis; conidiis oblongo-fusoideis, 28-30 × 10, 3-septatis, vix constrictis, fuligineis; peritheciis in mycelio gregariis et subabsconditis globulosis, obtusis v. depressis, 180-200 μ. lat., hyphis consimilibus laxe vestitis; ascis (immaturis) clavatis, 90–120 × 15-18, aparaphysatis, subsessilibus; sporidiis non visis. 1879

Hab. in ramis adhuc vivis Alni, Glacier Bay Alaska (Trelease). — Mycelium sistit *Hormiscii* v. *Antennariæ* formam; quæ forte ad *Hormiscium altum* Ehrenb. accedit.

SEURATIA Pat. Bull. Soc. Mycol. 1904, p. 136 (Etym. a cl. L. Seurat, qui fungos insularum Gambier legit). — Biogena; subiculo nullo inserta. Perithecia sicca rigida, humida gelatinoso-mollia, sessilia, varie ramosa, ex hyphis subhyalinis moniliformibus composita, rima laterali-dehiscentia. Asci suboctospori; sporidia 1-septata hyalina. — Contextu subgelatinoso et dehiscentia perithecii genus omnino distinctum. — *Heterobotrys paradoxa* Sacc. videtur v. forma ejus conidiophora vel status infans.

1. **Seuratia coffeicola** Pat. l. c. fig. 1 *a-h*. — Epiphylla; peritheciis sparsis, minutis, sessilibus, tremelloso-gelatinosis, brunneolis, pellucidis, applanatis 0,5-1 mm. lat., 3-8-corniculatis, ramis patenti- 1880

bus, simplicibus aut furcatis teretibus vel inflato-nodosis, contextu laxo gelatinoso, filamentoso-toruloso, articulis hyalinis ovoideis vel piriformibus, 6–10 μ. longis, ultimis fuliginosis minoribus subglobosis 5–6 μ. diam.; ascis numerosis ovoideis, subsessilibus apice incrassatis 35 × 22, octosporis, aparaphysatis, ope J. non cærulescentibus; sporidiis hyalinis ovoideis, medio 1-septatis constrictisque 14-17 × 7–10, loculis subglobosis.

Hab. in foliis Coffeæ arabicæ in insulis Gambier Polynesiæ gallicæ.

ANTENNARIA Link — Syll. I p. 80, IX p. 442.

1. **Antennaria rectangularis** Saccardo, Harrim Alaska Exped. Crypt. 1881
p. 34, pl. III, fig, 9. — Cæspitulosa v. effusa, superficialis, atro-fuliginea, laxiuscule intricata; hyphis ascendentibus, tortuosis v. subrectis, longissimis, filiformibus, 1,5-2 mm. long., 12–15 μ. cr., parce ramosis, multi-articulatis, articulis 22-28 × 12-15, ad septa non v. leniter constrictis, sæpe 1-guttatis; ramis simplicibus, subalternis, angulo perfecte recto patentibus, 70-80 raro usque 400 μ. longis, apicibus acutiusculis v. obtusis; peritheciis non visis.

Hab. ad surculos et folia Phyllodoces glandulifloræ, Sitka Alaska (Howell). — Certe affinis *Antennariæ Robinsonii* B. et M.; differt tamen hyphis omnibus æqualibus, nec partim torulosis, ramis angulo perfecte recto oriundis etc.

2. **Antennaria Unedonis** Maire et Sacc. in Ann. Mycol. 1903, n. 3, 1882
fig. II. — Epiphylla, nec non epiclada; mycelio partim effuso crustoso e cellulis pallidis moniliformi-seriatis vel *Coniothecii* ad instar plus minusve congregatis, filamentis tenuibus intermixtis, partim e floccis erectiusculis vel subeffusis, aterrimis contexto; hyphis floccorum subarticulatis juvenilibus subtiliter verruculosis, adultis sæpe sublevibus, vage ramosis, aliquando anastomosantibus, sub lente fuscis, 5-8 μ. crassis, cellulis plerumque cylindraceis, rarius oblongis vel subglobosis, spermogoniis biformibus, aliis minoribus piriformibus, fuscis, hyphis lateraliter adfixis, rarius acrogenis, superficie tuberculosis, spermatia cylindracea, hyalina, 2,5–4 × 1-1,5 emittentibus, 80–120 μ. longis; aliis autem majoribus cylindraceis vel corniformibus usque ad 300 μ. longis, atris, superficie tuberculosis, spermatia ellipsoidea vel oblonga, hyalina, 2,5 × 1,5 emittentibus; conidiis forma variis, aliis *Cladosporii*, aliis rarissimis *Triposporii* characteres exhibentibus; pycnidiis peritheciisque ascophoris ignotis.

Hab. ad folia ramulosque Arbuti Unedonis in Corsica.

2. **Antennaria scoriadea** Berk. — Syll. I, p. 82, et Sacc. Fl. Myc. Lus. XII (1903) p. 4.

Hab. in foliis ramisque Correæ ferrugineæ, in horto botanico Coimbra Lusitaniæ. — Pulcra species. Perithecia (?) in hyphis acrogena, globosa, 30 μ. diam., rara; hyphæ articulatæ in rhabdos fasciculatæ; articuli 5-7 μ. cr., guttulati, diametro transverso 2-3-plo longiores. Species probabiliter importata ex Australia, quæ reapse patria *Correæ*.

Fam. 2. Sphæriaceæ Fr.

Sect. 1. Allantosporæ.

ENCHNOA Fr. — Syll. I p. 89, IX p. 442, XI p. 271, XIV p. 478, XVI p. 1128.

1. **Enchnoa Friesii** Fuck. — Syll. I, p. 91. — var. **Salicis** Feltgen 1883
Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 135. — Peritheciis sparsis vel subcircinantibus, mycelio brunneo vestitis, globoso-depressis, ostiolo verruciformi, epidermidem perforante; ascis tereti-clavatis 52-75 × 6,5-8, p. spor. 40-50 μ. long.; sporidiis octonis, inordinatis, cylindraceo-curvis, utrinque obtusis, hyalinis, eguttatis, 12-15 × 2,5-3.

Hab. in ramis salicinis, Luxemburg.

2. **Enchnoa Syringæ** Feltgen Vorstud. Pilz. Luxemb. Nachtr. III, 1884
1903, p. 161. — Peritheciis dense et æqualiter sparsis, omnino immersis, ostiolo globoso, subinde rostellato, erumpentibus, hemisphæricis; hyphis brunneis vel subhyalinis cinctis, 0,5-1 mm. d.; ascis non visis; sporidiis cylindraceo-ellipsoideis, curvulis, continuis, hyalinis, 11-13 × 3-4.

Hab. in ramis siccis corticatis Syringæ vulgaris, Luxemburg. — Dubia species, quia asci non visi.

CŒLOSPHÆRIA Sacc. — Syll. I p. 91, IX p. 443.

1. **Cœlosphæria? pusillima** Speg. in Ann. Soc. Cient. Arg. 1899, 1885
p. 269. — Maculis nullis v. tota ligni superficie pallescente; peritheciis densiuscule gregariis sed non constipatis et sæpius late diffusis, ligno semiinsculptis, globosis, 120-150 μ. diam., carbonaceis, glabris; ostiolo sæpius elongato, gracili, obtuso; ascis clavu-

latis, antice obtuse rotundatis, postice cuneato-attenuatis breviterque pedicellatis, p. spor. 15-16 ≈ 6, pedicello 5-10 ≈ 1-2, octosporis, aparaphysatis; sporidiis botuliformibus leniter curvulis, utrinque obtusis atque minute uniguttulatis, 4-5 ≈ 1, hyalinis.

Hab. ad ramos denudatos putrescentes Erythrinæ crista-galli, in insula Santiago prope La Plata Argentinæ. — Species valde singularis a genere ostiolo elongato sat recedens: an melius *Pleurostoma ?*

NITSCHKEA Otth — Syll. XI p. 172, XVI p. 417.

1. **Nitschkea subconica** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 201. — Peritheciis sparsis v. 4-8 cæspitulosis, ligni superficiem nigrificantibus, subsuperficialibus v. basi insculptis, subiculo nullo præditis, globoso-conoideis, ostiolo minuto perforato nitido, opace nigris, 0,5 mm. diam.; ascis octosporis, clavato-piriformibus 20-31 ≈ 4,5-6, parte sporif. 13-18 μ. longa, subinde 4-sporis, 15 ≈ 3,5; sporidiis distichis v. inordinatis, allantoideis, utrinque 1-guttulatis v. eguttulatis, 5-6 ≈ 1-2; paraphysibus ascos multo superantibus, 60-87 ≈ 3,5-4,5 sursum 1-2, septulatis. 1886

Hab. in ramis decorticatis Platani orientalis, Scheidhof, Luxemburg. — Peritheciis non collabascentibus, ascis minoribus etc. a *N. tristi* et *N. cupulari* distinguitur.

2. **Nitschkea Flageoletiana** Sacc. Atti Congr. bot. di Palermo 1902, p. 48. — Peritheciis in superficie stromatis *Eutypæ latæ* dense lateque gregariis, minutissimis, basi late leviterque coarctata sessilibus, supra applanato-convexulis, 80-100 μ. diam., opace nigris, ostiolo brevissime papillato, 10-12 μ. diam.; contextu partis superioris perithecii eximie radiato; ascis rosulatis breviter obclavatis, subsessilibus, sæpe inæquilateris utrinque obtusis, 45-50 ≈ 14-15, paraphysibus spuriis mucosis obvolutis, 4-6-sporis; sporidiis subdistichis, breviter fusoideo-oblongis, utrinque obtusulis sæpe inæquilateris, 17 ≈ 5,5-6, quadriguttatis, guttulis mediis multo crassioribus. 1887

Hab. parasitice in stromatibus Eutypæ latæ ad ramos decorticatos Corni sanguineæ (?) Rigny sur Arroux Galliæ. — E typo *N. mediæ* et *N. calyculi,* sed bene distincta contextu, ascis sporidiisque.

CALOSPHÆRIA Tul. — Syll. I p. 95, IX p. 447, XI p. 272, XIV p. 479, XVI p. 419.

1. **Calosphæria Abietis** Krieger ap. Rehm Hedw. 1903, p. (291). — 1888

Peritheciis tectis, cortici interiori adnatis, dein peridermio secedente demum liberis, globosis, 0,5 mm. diam., 5–6 in acervulos valsiformes collectis, interdum solitariis, stromate nullo nec cortice nigrescente circumdatis, glabris; ostiolis cylindraceis, 1 mm. long., convergentibus; ascis clavatis, obtusis, in pedicellum tenuissimum elongatis, 35–40 × 5-6, octosporis; paraphysibus longissimis, septatis 2,5-3 μ. cr.; sporidiis allantoideis, plerumque semicirculariter curvatis, hyalinis 5–7 × 1, distichis.

Hab. in ligno corticato Abietis albæ, Schandau Saxoniæ (Krieger).

2. **Calosphæria Cinchonæ** Zimm. Berichte üb. Land-und Forstwirth. 1889
Deutsch Ostafrika, 1904, p. 31, tab. III, fig. 15 *a* et *b*. — Peritheciis subsolitariis vel paucis aggregatis, subliberis, basi tantum insculptis, nigris, sursum pallidioribus, longiuscule rostellatis, 200-250 × 80–100; ostiolo piloso; ascis octosporis, apice obtusis; sporidiis leviter curvatis vel subrectis, utrinque obtusis, medio guttulatis, 18–20 × 5.

Hab. in ramis emortuis Cinchonæ succirubræ et C. Ledgerianæ in horto Amani Africæ orient.

JATTÆA Berl. — Syll. XVI p. 421.

1. **Jattæa Berlesiana** Sacc. et Trav. in Ann. Mycol. 1903, p. 432, f. II. 1890
— Peritheciis sparsis vel laxe gregariis, peridermio insculptis dein erumpentibus, sphæroideis, erostratis, ostiolo subrotundo vix papillato pertusis, 200 μ. diam.; ascis cylindraceo-clavulatis, superne truncatulis, vix pedicellatis, octosporis, 38–42 × 6–7, paraphysibus paucis, longioribus, guttulatis, commixtis; sporidiis subdistichis, cylindraceo-allantoideis, plerumque biguttulatis, hyalinis, 10-12 × 2,5.

Hab. in truncis et ramis emortuis Cisti salvifolii, prope Sassari Sardiniæ (A. N. Berlese). — Socia adest *Sphæropsidacea* quædam (*Cytospora?*) sporulis allantoideis, minutis, 2,5–3,5 × 0,8–1,2. Verisimiliter status spermogonicus.

VALSA Fr. — Syll. I p. 108, IX p. 449, XI p. 273, XIV p. 481, XVI p. 422.

1. **Valsa** (Euvalsa) **sardoa** Sacc. et Trav. Ann. Myc. 1903, p. 433, f. III. 1891
— Stromatibus gregariis, minutis, 400-600 μ. diam., subcorticalibus dein erumpentibus et prominentibus, ex 4–15 peritheciis sphærioideo-compressis, circinantibus compositis; disco minuto, circulari, nigro; ostiolis brevicollibus, obtusis, a disco vix emergenti-

bus, nigris; ascis minutis, 20–30 × 6, fusoideo-truncatis, octosporis; sporidiis subdistichis, cylindraceo-allantoideis, biguttulatis, hyalinis, 5–6 × 1 ½.

Hab. in ramis corticatis Oleæ europææ, prope Sassari Sardiniæ (A. N. Berlese). — Adest spermogonium peraffine [*Cytosporæ elæinæ*, a qua differt præcipue stromatibus infra non umbilicatis et cirro deficiente. Verum hæ notæ probabiliter ab ætate pendent; cetera conveniunt.

2. **Valsa** (Euvalsa) **Cerasi** Feltg., Vorstud. Pilz. Luxemb. Nachtr. II, 1892
p. 113 (1901). — Stromatibus sparsis, basi elliptica, 1,5-2 mm. latis, nigris, peridermio tumidulo cinctis, disco minuto nigro vix emergente; peritheciis 15–25 in quoque stromate, monostichis, globoso-ovoideis; ostiolis globoso-conicis, atro-nitidulis, stipatis; ascis clavato-fusoideis, 31–40 × 5–6,5; sporidiis distichis v. inordinatis cylindraceis rectis curvulisve, hyalinis, 9–10 × 2, 2-guttulatis.

Hab. in ramis corticatis Pruni Cerasi et P. avium in Luxemburgia. — *Valsæ decorticatæ* affinis; cum *Valsa Persoonii* ne comparanda quidem.

3. **Valsa** (Euvalsa) **ceratophora** Tul. — Syll. I, pag. 108. — var. 1893
Deutziæ Feltg. Vorstud. Pilze Luxemb. Nachtr. III, p. 124. — Ostiolis vix supra corticem emergentibus, apice incrassatulis, vix 1 mm. long.; ascis paullo crassioribus; sporidiis 8–12 × 2-3 (nec ut in typo 6-8 × 1,5-2).

Hab. in ramis corticatis Deutziæ scabræ in Luxemburgia. — Var. **Rhois** Feltg. l. c.: peritheciis numerosissimis, brevicollibus, in ostiola minuta globulosa discum griseum vix emergentem formantia terminatis; ascis 33–40 × 5,5; sporidiis 7–9 × 1,5–2. In ramis corticatis Rhois Cotini, Luxemburg. — Var. **farinosa** Feltg. l. c. (*Valsa farinosa* Feltg. Nachtr. II, pag. 115): Imprimis distincta collis et ostiolis globosis indumento griseo-farinoso copiosiore vestitis; ascis 32–39 × 4,5-5; sporidiis 7-8 × 1,5-2. In ramis corticatis Rosæ caninæ, Luxemburg, socia *Cytospora farinosa* Feltg. — Var. **Corni** Feltg. l. c. p. 127: ostiolis ovato-ellipsoideis, vix emergentibus collisque griseo-pruinosis; ascis 38–40 × 6,5; sporidiis 10-13 × 2,5-3. In ramis corticatis Corni stoloniferæ, Fort Olizy Luxemburgiæ.

4. **Valsa** (Euvalsa) **Lepargyreæ** Earle, Plantæ Bakerianæ, fasc. II, 1894
fung. p. 25. — Stromatibus sparsis, pustuliformi-emergentibus; peritheciis in singulo stromate 12-20, immersis, nigris, membranaceis, minute ostiolatis; ascis octosporis, fere sessilibus 40-50 × 6; spo-

ridiis continuis hyalinis, leviter curvulis, utrinque obtusis, 12–16 ≈ 3.

Hab. in ramis emortuis Lepargyreæ argenteæ, Hermosa, South Colorado, Amer. bor.

5. **Valsa** (Euvalsa) **salicina** (Pers.) Fr. — Syll. I, p. 131. — Huc ducenda, velut forma tetraspora, *Valsa capistraria* De Not. Sfer. ital. I, p. 36, t. 40, Erb. critt. ital. I, n. 1057.

EUTYPELLA (Nits.) Sacc. — Syll. I p. 145, IX p. 460, XI p. 274, XIV p. 484, XVI p. 423.

1. **Eutypella australis** Karst. apud Berl. Ic. fung. III, p. 61, t. 75, fig. 1. — Stromate late effuso, epidermide tecto, crustaceo, atro, hinc inde circa perithecia acervulatim collecta elevato, tumidulo; acervulis gregariis, minutis, inflatulis; peritheciis in quoque acervulo paucis (2–4), globoso-ovoideis, 500 μ. diam., mutua pressione parum compressis, collis brevissimis convergentibus præditis; ostiolis parum prominulis, incrassato-subsphæroideis, distincte 4-sulcatis, nigris; ascis clavatis, 35–40 ≈ 6-8 p. spor.; sporidiis allantoideis 10-12 ≈ 2,5-3, pallide luteo-viridulis. 1895

Hab. in ramis ignotis, in Nova Caledonia (Balansa).

2. **Eutypella Cratægi** Berl. Ic. fung. III, p. 74, t. 92, f. 1. — Stromate late effuso, corticali, plus minusve immerso, serpente, crustaceo, circa acervulos elevato, eos ambiente et peridermium attingente, nigro; acervulis gregariis 1,5-2 mm. diam., orbicularibus, tumidis, verruciformibus, intus albo-pruinosis; peritheciis pruinosis, immersis, ovoideis, 500-700 μ. alt., sæpe mutua pressione compressis, in quoque acervulo 6-10, in collum parum elongatum productis; ostiolis sat exsertis, haud incrassatis, irregulariter 2-4-sulcatis; ascis clavatis 30-40 ≈ 5-7 p. spor.; sporidiis allantoideis 10-12 ≈ 2,5-3, luteo-virescentibus. 1896

Hab. in ramis Cratægi Oxyacanthæ, in agro Veneto Ital. bor. — Ab *Eutypa ludibunda*, teste auctore, satis distincta et *Eutypellæ leprosæ* proxime affinis.

3. **Eutypella Padi** (Karst.) Sacc. — Syll. I, pag. 147. — ***E. pirina** Sacc. et Flag. — A typo differt disco ostiolorum semper suborbiculari, vix 0,5-0,7 mm. diam. (nec 1-2 mm.), ostiolis exiguis leviterque sulcatis; ascis ut in typo 40 ≈ 7, p. sporif. 25 μ. longa; sporidiis botuliformibus 6-7 ≈ 2, luteolis. 1897

Hab. in ramis corticatis emortuis Piri communis, Rigny sur Arroux (Saone-et-Loire) Galliæ.

4. **Eutypella diminuta** Sacc. et Flag. in Atti Congr. bot. di Palermo 1902, p. 49.. — Stromatibus laxe gregariis, minutis, e basi orbiculari truncato-conicis, cortice immutato immersis, 1-1,2 mm. diam. nigris; peritheciis globosis, circinatis, paucis (5-8), 200-250 μ. diam., brevicollibus; ostiolis erumpentibus et breviter exstantibus, obtuse rotundatis, integris, poro minutissimo pertusis, discum compactiusculum 500-600 μ. diam. formantibus; ascis fusoideis, 22-25 × 5 (p. sporif.) in stipitem subæquilongum tenuatis, aparaphysatis, octosporis; sporidiis distichis, allantoideis, conspicue curvatis, 6-7 × 1,5, hyalinis, utrinque rotundatis 1-guttulatisque, coacervatis dilutissime olivaceis. 1898

Hab. in ramis corticatis Pruni spinosæ, Rigny s. A. Galliæ. — Ab *E. Prunastri* mox dignoscitur stromatibus dimidio minoribus, subrotundis, peritheciis paucioribus.

5. **Eutypella exigua** Ell. et Ev. in Berl. Ic. fung. III, p. 58 t. 73. — Stromate effuso, crustaceo, a matrice bene distincto, peridermio tecto vel etiam cortice immerso, undulato; acervulis minutis, vix prominulis, subsparsis; peritheciis 3-8 in quoque acervulo parenchymate et fibris corticis immersis; collis elongatis, convergentibus, cylindraceis vel subclavatis; ostiolis fasciculatim erumpentibus, teretibus, sæpius sat elongatis, nigris, 4-sulcatis, rugosulis; ascis clavatis breviuscule stipitatis, 14-18 × 5-7 p. spor.; sporidiis cylindraceis, valde curvatis 3,5 × 1,5, pallide viridulis. 1899

Hab. ad corticem Ulmi, London, Canada Amer. bor. et Vimercate Ital. bor.

6. **Eutypella tetraspora** Berl. Ic. fung. III, pag. 75, t. 93, f. 1. — Stromate parco, crustaceo, extus rugoso-scruposo, nigro, peridermio tecto, tantum circa acervulos evoluto, tenui, intus sordide luteo, pruinoso, inferne e cortice denigrato formato; acervulis verruciformibus subsparsis, peridermio transverse rupto arcte cinctis, magnis, ovoideis, usque 5 mm. long.; peritheciis in quoque acervulo 4-6 subinde circa stroma circinantibus, discretis v. sat dense sed irregulariter stipatis, superne pruina, basi cortice denigrata, immersis, globulosis v. oblongis mutua pressione subinde parum compressis, in collum pro situ plus minusve elongatum productis; ostiolis vix exsertis integris; ascis copiosissimis, clavatis, breviter stipitatis, 17-20 × 4-6, tetrasporis; sporidiis allantoideis, bi-triguttatis, 9-11 × 2-3,5. 1900

Hab. in ramis Elæagni angustifoliæ prope Berolinum (Sydow). — Inter *Calosphæriam* et *Eutypellam* fere media.

7. **Eutypella Shearíana** Berl. Ic. fung. III, p. 68, t. 83, f. 1, *Diatrype albo-pruinosa* Shear, New York Fung. exsicc. n. 576, non Schwein. — Stromatibus pulvinatis, extus fusco-fuligineis vel nigricantibus cortice linea nigra serpente circumscriptis, ovoideis v. suborbicularibus, 1-3 mm. longis, gregariis, erumpentibus, peridermio circum circa cinctis; peritheciis in quoque acervulo 3-9 ovoideo-sphæroideis, mutua pressione angulatis, collis brevibus vel subinde satis elongatis præditis, pruina immersis; ostiolis vix exsertis, tri-tetragonis; ascis clavatis, 45-55 × 6-8 p. sp.; sporidiis allantoideis, 14-16 × 4-5, saturate lutescentibus. 1901

Hab. in ramis Salicis, Long Pine, Nebraska Amer. bor.

8. **Eutypella Zelkowæ** P. Henn. in Engl. Jahrb. 1902, XXXII, p. 42. — Acervulis erumpentibus prominulis, 1-1 $^1/_2$ mm. diametro, stromatibus immersis, atris ex 6-15 peritheciis ovato-rotundatis constantibus, collo brevi-cylindraceo, ostiolis capitellatis 3-4-sulcatis, atris; ascis clavatis vertice obtusiusculis, basi attenuato-pedicellatis, 24-30 × 4; 8-sporis; sporidiis subdistichis allantoideis obtusiusculis, curvulis, hyalino-subfuscescentibus, 4-5 × 1-1 $^1/_2$. 1902

Hab. in trunco emortuo Zelkowæ acuminatæ, Tokio Japoniæ in horto bot. (S. Kusano).

9. **Eutypella scoparioides** Pat. Bull. Soc. Mycol. 1902, pag. 302. — Acervulis erumpentibus, prominulis 500 μ. diam.; peritheciis monostichis, stromate albido, absque linea nigra limitato, immersis, globosis, atris, vix 250 μ. latis, 8-12 tantum in singulo stromate, collis erectis brevibus, dense stipatis, circinantibus ac convergentibus, ostiolis obtusiusculis, aterrimis, quadrisulcatis; ascis oblongis, minutis, longe pedicellatis, p. sporif. 13-15 × 4-5, octosporis; sporidiis minutis 3-4 × 1, cylindraceo-curvulis, biguttulatis, in cumulo lutescentibus. 1903

Hab. ad cortices, Hakodate, Yeso Japoniæ (Faurie). — *Eut. scopariæ* (Schw.) Ell. et *Eut. microcarpæ* Ellis affinis.

10. **Eutypella æquilinearis** (Schw.) Starb. Sphær. imp. cogn. p. 15, Berl. Ic. fung. III, p. 77, *Sphæria æquilinearis* Schw. — Syll. fung. II, pag. 376. — Asci anguste cylindraceo-clavati vix pedicellati, 25-30 × 5-6 p. sp.; sporidia allantoidea, rarissime subrecta, 7-8 × 1,5-2, hyalino-flavescentia.

11. **Eutypella cerviculata** (Fr.) Sacc. — Syll. I, p. 239. — Huc ducendæ sunt sec. Ell. et Ev. Journ. of Mycol. 1902, VIII, p. 14: *Diatrype megastoma* Ell. et Ev. — Syll. IX, p. 475 — et *Eutypella alpina* Ell. et Ev. — Syll. XIV, p. 485.

VALSELLA Fuck. — Syll. I p. 158, IX p. 464, XI p. 275.

1. **Valsella Saccardoi** Berl. Ic. fung. III, tab. 131, f. 1. — Stromatibus gregariis, cortice innatis, pustulatim elevatis, orbiculato-conicis, disco plano ostiolis (18-20) vix emergentibus punctato; peritheciis ovoideis, monostichis, in collum cylindraceum æquilongum productis; ascis crasse clavatis, apice rotundatis brevissime tenuato-stipitatis, 34-38 × 9-12, polysporis; sporidiis allantoideis, conglobatis, 9-11 × 2-2,5, vix v. non guttulatis, hyalinis. 1901

Hab. in corticibus, Keren Abyssiniæ socia *Cryptovalsa tenella* (Penzig). -- A *Valsella myriotheca* Pass. saltem a diagnosi et icone videtur differre ascis sporidiisque multo majoribus: an tamen mensuræ Passerinianæ exactæ?

CRYPTOVALSA Ces. et De Not. — Syll. I p. 187, IX p. 471, XI p. 276, XIV p. 487, XVI p. 426.

1. **Cryptovalsa macrospora** (Sacc.) Trav. in litt. *C. ampelina* var. *macrospora* Sacc. ap. Abb. Allesch. Cryptov. p. 42 (Malp. 1902) *C. ampelina* Abb. l. c. nec Nits. et Fuck. — Stromate effuso, nigro, subcorticali v. in ligno serpente, circa perithecia acervulatim collecta elevato, corticem inquinante; acervulis prominentibus, rotundatis v. ellipticis, distinctis; peritheciis numerosis mono-distichis, cortice imo immersis vel ligno adnatis, majusculis, mutua pressione angulatis, erectis in collum longiusculum attenuatis; ostiolis valde exsertis, integris; ascis clavatis, longe pedicellatis, 45-55 × 10-13 p. sp.; sporidiis allantoideis, luteo-fuscescentibus, 9-12 × 3-4. 1902

Hab. in sarmentis Vitis viniferæ in Italia bor. — Ab affini *C. Rabenhorstii* differt præcipue acervulis magis distinctis et tumidis, collis longioribus, ostiolis non sulcatis.

2. **Cryptovalsa pirina** Ell. et Ev. in Journ. of Mycol. 1903, p. 167. — Stromatibus effusis, in ligno nigrificato insidentibus; peritheciis ovato-globosis, valsoideis, 4-8-congestis, ostiolis brevibus, integris vel sulcatis, obtusis vel subconicis, erumpentibus, collapsis donatis; ascis polysporis, longe filiformi-pedicellatis, p. spor. 65-70 × 10-12; sporidiis allantoideis, luteolis, subcurvulis, 11-13 × 1,5-2. 1903

Hab. in ramis emortuis Piri coronariæ, River Forest, Illin., Amer. bor.

3. **Cryptovalsa Rabenhorstii** (Nits.) Sacc. — Syll. fung. I, p. 190. — var. **Rosarum** Sacc. apud Abbado, Allescherina e Cryptov. p. 41 (Malp. 1902). — Stromate ligneo; acervulis gregariis; peritheciis 1902

distichis in collum longiusculum productis; ascis 45-55 × 11-13; sporidiis 11-12 × 3,5-4.

Hab. in ramis Rosæ caninæ in Italia et Germania (Saccardo et Rehm). — Var. **subendoxyla** Sacc. apud Abbado, Allescherina e Cryptov. p. 41 (Malp. 1902). — Stromate ligneo. corticem inquinante; peritheciis parvis, acervulatim collectis, pruina alba indutis, ligno immersis vel etiam cortice immersis et ligno adnatis, in collum brevissimum productis; ascis ut in typo; sporidiis 12-14 × 4. — In ramis Celtidis australis in Italia. — var. **eutypelloidea** Sacc. apud Abbado, Allescherina e Cryptovalsa p. 41 (Malpighia 1902). — Stromate corticali, circa perithecia acervulatim collecta elevato; acervulis pustuliformibus, distincte rotundatis, peridermio elevato et circa ostiola aggregata laciniatim rupto cinctis; peritheciis cortice immersis v. ligno adnatis, pruina luteo-ferruginea superne indutis, in collum breve crassum productis; ostiolis incrassatis, quadrisulcatis, prominulis; ascis late clavatis, superne rotundatis, p. sp. 48-53 × 12-14; sporidiis saturate viridi-luteis, allantoideis, 11-13 × 3-4. — In ramis Rhamni catharticæ, Selva (Treviso) Italiæ borealis.

EUTYPA Tul. — Syll. I p. 162, IX p. 466, XI p. 275, XIV p 486, XVI p. 424.

1. **Eutypa Tarrietiæ** P. Henn. in Hedw. 1903, p. (81). — Stromatibus sub epidermide nidulantibus, carbonaceis, atris, ca. 1-3 mm. diam.; peritheciis 5-20 subglobosis, ostiolis erumpentibus, subclavatis, flexuosis, rigidis, atris vertice plus minus incrassatis, obtusis, ca. 200-400 × 80-100; ascis subclavatis v. fusoideis. octosporis, p. sp. 12-15 × 2,5-3,5; sporidiis distichis cylindraceo-curvatis, utrinque obtusis, hyalino-fuscidulis, 4-5 × 0,5-0,8. 1908

Hab. in ramis emortuis Tarrietiæ, South Queensland Australiæ (Pritzel).

2. **Eutypa Kusanoi** P. Henn. Engl. Jahrb. 1902, XXXII, p. 43. — Acervulis longitudinaliter dispositis erumpentibus, elongatis, epidermide atrata, fissa cinctis, c. 2-6 mm. longis, 1 mm. latis, stromate immerso, flavo; peritheciis numerosis usque ad 40 vel 60, subglobosis, minutis, atris, ostiolis rotundatis annulato-pertusis atro-nitentibus; ascis clavatis apice obtusis, 8-sporis, 18-24 × 4 1/2-5 paraphysatis; sporidiis distichis cylindraceis vel subfusoideis, curvulis, utrinque obtusis, continuis, hyalinis, 6-8 × 1 1/2. 1909

Hab. in culmis emortuis Bambusæ, Formosa Japoniæ (S.

Kusano). — Affinis *E. bambusinæ* sed stromate flavo, sporidiis non guttulatis etc. diversa.

3. **Eutypa hypoxantha** (Lév.?) Starb. Ascom. Regn. Exped. in Vet. 1910
Akad. Handl. 25, III, p. 63. Ita nuncupanda, probabiliter, *Sphæria hypoxantha* Lév. — Sacc. Syll. II, p. 395 — quæ sec diagn. Lév. differret sporidiis ovoideis curvulis, quod ex imperfecta obsetvat. microscop. pendere potest. Sec. Starb. vero sporidia sunt allantoidea 9-10 × 1,5 (ex err. typ. 4;5) fuscidula; asci 30 × 6.

Hab. in culmis Bambusæ in Brasilia (Lindman, Barbosa). — Ubi species a Leveilleana differret, dicenda est *E. Barbosæ* v. Höhn. Hedw. 1901, p. (104).

PERONEUTYPA Berl. Ic. fung. III, p. 80 (1902) *Eutypa, Diatrype* Auct. p. p. (Etym *perone*, fibula). — Stroma effusum crustaceum. atrum, corticale vel ligneum. Perithecia tecta discreta gregaria vel subsparsa, numquam acervulata, subglobosa, monosticha in colla prælonga, cylindracea, ostiolis integris v. sulcatis coronata producta. Asci clavulati, longe stipitati, octospori. Sporidia allantoidea, minuta, chlorina. — Est *Eutypa* collis prælongis. Huc ducendæ species sequentes: *P. corniculata* (Ehrb.) Berl., *P. bellula* (Desm.) Berl., *P. heteracantha* (Sacc.) Berl. l. c. cum iconibus.

1. **Peroneutypa cylindrica** (K. et C.) Berl. Ic. III, p. 82, *Calosphæria* 1911
K. et C. — Syll, I, 98. — var. **Leopoldina** Rehm, Asc. n. 1537, Hedw. 1904, pag. (32). — Stromate late effuso, peridermio tecto, cortici interiori innato, a corticis substantia heterogeneo, crustaceo, crasso, atro; peritheciis valsiformiter 8-10-monostiche congregatis, in acervulis hemisphæricis vel subglobosis, 3-4 mm. diam. atris, carbonaceis, oblongis, 1 mm. diam., rostris per rimam peridermii erumpentibus, fascicularibus, tereti-cylindraceis, apice obtusis, glabris, plerumque parallele erectis, demum divergentibus 1-2,5 mm. longis; ascis clavatis, vix stipitatis, 10-20 × 4-5, octosporis; sporidiis bacillaribus, curvatulis, utrinque obtusis et minutissime 1-guttulatis, subhyalinis 4-5 × 2; paraphysibus nullis.

Hab. in ramis emortuis, Sao Leopoldo, Rio grande do Sul Brasiliæ (Prof. J. Rick).

PERONEUTYPELLA Berl. Ic. fung. III, p. 82 (1902) (Etym. a *Peroneutypa*, cui affinis). — Stroma effusum, crustaceum, atrum, peridermio v. epidermide tectum. Acervuli plus minus tumidi, subinde erumpentes. Perithecia in quoque acervulo plus minus numerosa,

mono-polysticha, in collum prælongum apice ostiolo integro v. sulcato coronatum producta, subglobosa. Asci clavati longe stipitati. Sporidia allantoidea, chlorina. — Est *Eutypella rostellata* v. *Peroneutypa* acervulata. — Huc ducendæ species sequentes: *P. isariphora* (Nits.) Berl., *P. cylindrica* (K. et Cooke) Berl., *P. corynostoma* (B. et R.) Berl., *P. microcarpa* (E. et Ev.) Berl., *P. clavulata* (Cooke) Berl., *P. aurantiicola* (Speg.) Berl., *P. scoparia* (Schw.) Berl., *P. capillata* (E. et Ev.) Berl., *P. comosa* (Speg.) Berl. l. c. cum iconibus.

1. **Peroneutypella longirostrata** (P. Henn.) Sacc. et D. Sacc. *Valsa* 1912
longirostrata P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 63. — Stromatibus sub cortice nidulantibus, atro-crustaceis effusis; peritheciis gregarie cæspitosis, globulosis vel ovoideis, 0,5-0,8 mm. diam. atro-carbonaceis, ostiolis (3-15) fasciculato-erumpentibus, teretibus, subulatis, atris, apice obtusiusculis rigidis, erectis, 2-3 mm. longis, 100-120 μ. crassis; ascis subclavatis, longe stipitatis (plerumque evanescentibus) 8-sporis?, aparaphysatis; sporidiis subdistichis, cylindraceis, curvulis, obtusis, hyalinis v. dilute fuscidulis, $3\,^1/_2$-4 × 0,5-0,7.

Hab. in ramis corticatis arborum, Rio Juruà, Juruá-Miry Amazoniæ.

ENDOXYLA Fuck — Syll. I p. 181, IX p. 469, XI p. 275.

1. **Endoxyla microspora** Ferraris in Malpighia 1903, pag. 9 (extr.). 1913
— Stromate ligno innato, cinerescenti; peritheciis ligno, superficie nigrificato, tectis, sparsis, globosis, 350-360 × 430-440, ostiolis majusculis prominentibus; ascis anguste clavatis longe pedicellatis, octosporis, 20-24 × 5-6 p. sporif.; sporidiis distichis, subfuscis, curvulis, 7-8 × 1,5-2.

Hab. in ramo sicco, decorticato Abietis, Valle della Thuile Italiæ bor.

2. **Endoxyla comata** Starb. in Arkiv för Botan. 1904, Band 2, p. 19. 1914
— Stromate nullo; peritheciis monostichis, ligno plane insculptis, sphæroideis, 500 μ. diam. per peridermium ostiolis cylindricis nigris nitidis erectis erumpentibus, hinc inde gregariis, pilis fasciculatis, interdum etiam interpositis plerumque coronatim cinctis, peridermii laciniis (1-8) arcte cinctis; contextu coriaceo-molli olivaceo-nigro minute dense parenchymatico; ascis late clavatis v. cylindraceis, longissime pedicellatis p. sporif. 13-20 × 3,5-5; sporidiis

octonis, conglobatis, allantoideis, 4-6 × 1-1,5; paraphysibus mox confluentibus massa pellucida ascos omnino obvallantibus.

Hab. in ligno corticato, Porto Alegre, Rio Grande do Sul Brasiliæ. — Corona pilorum et minutie ascorum prædistincta species.

DIATRYPE Fr. — Syll. I p. 191, IX p. 472, XI p. 276, XIV p. 487, XVI p. 426.

1. **Diatrype americana** Ell. et Berl. in Berl. Ic. fung. III, pag. 94, t. 117, f. 2, *D disciformis* v. *americana* Ell. N. A. F. exs. n. 490. — 1915
Stromatibus sparsis vel subapproximatis, erumpentibus, discoideo-orbicularibus, superne quandoque convexulis, sed vulgo planis, fusco-fuligineis, peridermio laciniatim rupto arcte cinctis, centro rufescenti-fuscis, ob ostiola minuta, parum v. vix exserta, punctiformia, distincte 3-4-gona, atra asperulis, intus albicanti-furfuraceis; peritheciis in quoque stromate 10-20 sat stipatis, monostichis, collo brevi instructis, oblongis, compressis; ascis clavatis 30-35 × 6-8 p. sp.; sporidiis allantoideis, 10-12 × 2-2,5, lutescentibus.

Hab. in ramis Magnoliæ et Quercus albæ, New Jersey et South Carolina Amer bor. (in herb. Berol. sub nom. « Diatrype virescens »).

2. **Diatrype Bonæ-Spei** Berl. Ic. fung. III, p. 87, t. 106, f. 2. — 1916
Stromate effuso, peridermio tecto, hinc inde inflato et acervulos gregarios conoideos pulvinatos, rugulosos, intus albo-pruinosos efformante; peritheciis in quoque acervulo haud nimis numerosis, pruina ceracea immersis, globuloso-ovoideis, in collum longiusculum attenuatis; ostiolis parum exsertis, incrassatulis, integris; ascis clavatis, 35-45 × 6-8 p. sporif.; sporidiis allantoideis, 9-11 × 2-2,5, subhyalinis.

Hab. in ramis indeterminatis ad Caput Bonæ-Spei Africæ (Mac Owan) in herb. Berol., sub nomine err. « Diatrype capensis »).

3. **Diatrype nigerrima** E. et Ev. Journ. of Mycol. 1904, p. 170. — 1917
Stromate superficiali effuso, tuberculoso-rugoso, extus nigro, intus albo; tuberculis 1-1,5 mm. diam. v. confluendo 0,5-1 cm. diam.; peritheciis monostichis, globosis vel ovoideis, confertis, minutis 250-300 μ. diam., sursum in collum breve tenuatis; ostiolis 8-10, congestis subglobosis conos minutos in superficie stromatis formantibus; ascis lanceolatis, apice demum rotundatis parte spor. 25 × 3-4; sporidiis octonis, allantoideis, fumose hyalinis, curvulis 8-10 × 1-2.

Hab. in cortice Vitis, Glencoe Illinois Amer. bor. (Harper).

DIATRYPELLA Ces. et De Not. — Syll. I p. 200, IX p. 477, XI p. 277, XIV p. 488, XVI p. 427.

1. **Diatrypella rimosa** Shear in Bull. of the Torr. bot. Club. 1902, p. 454. — Stromatibus sparsis vel interdum gregariis, erumpentibus, fere ellipticis vel suborbicularibus, intus albidis, 1-3 mm. long., basi paullo constrictis, zona nigra circumscriptis, erumpentibus, disco plano vel convexulo, levibus, indistincte 4-sulcato-ostiolatis, transverse rimosis; perithecis 5-15, 1-seriatis, globosis vel mutua pressione angulosis; ascis elongato-clavatis, longe stipitatis, paraphysatis, 90-135 × 6-7 (p. spor. 60-70 × 6-7); paraphysibus filiformibus, pluriguttulatis; sporidiis luteo-brunneis, parce curvatis, numerosis, 5-7 × 1,5. 1918

   Hab. in ligno Alni spec. Wallowa Lake, Oregon Amer. bor. — *D. discoideæ* var. *Alni* Cooke affinis.

2. **Diatrypella orgaoensis** P. Henn. in Hedw. 1904, pag. 88. — Stromatibus erumpenti-superficialibus, cortice fisso circumdatis, pulvinatis, atris, subnitentibus vel opacis, rugulosis, ostiolis verrucoso-prominulis 1,5-2 mm. diam.; perithecis subglobosis immersis; ascis longe clavatis vel fusoideis, pedicellatis, apice rotundatis, p. spor. 20-28 × 3,5 polysporis; sporidiis cylindraceis, curvulis, utrinque obtusis, 5-6 × 0,6-0,7 μ. fuscidulis. 1919

   Hab. in corticibus Leguminosæ? cujusdam, Serra dos Orgaos, Rio de Janeiro Brasiliæ (E. Ule).

3. **Diatrypella vetusta** Ell. et Ev. in Journ. of Mycol. 1903, p. 168. — Stromatibus dense sparsis, erumpenti-superficialibus 0,8-1,5 mm. diam., nigris, subprominentibus, obtusis, levibus, ostiolatis; ascis clavato-cylindraceis, 75-80 × 8-10; sporidiis allantoideis, luteis, dense congestis, subcurvulis, utrinque obtusis. 1920

   Hab. in ligno decorticato, emortuo, River Forest, Illin. Amer. bor.

4. **Diatrypella xanthostroma** Ell. et Ev. in Journ. of Mycol. 1903, p. 225. — Stromatibus tuberculari-erumpentibus, 2-4 mm. diam., nigris; perithecis 4-10 in singulo stromate congestis, globosis v. lateraliter compressis, 500 μ. diam. superne abrupte contractis, ostiolo papilliformi, conico pertuso, brevi donatis; ascis clavato-oblongis 55-65 × 8-10, polysporis; sporidiis allantoideis, luteo-hyalinis, subcurvulis, 9-10 raro 9-12 × 2. 1921

   Hab. in ramis emortuis Piri japonicæ, London, Canada Amer. bor.

Sect. 2 Hyalosporæ.

GLOMERELLA Schrenk et Spauld. Science N. S. XVII, 1903, p. 750. *Gnomoniopsis* Stonem. — Syll. XVI, p. 452 — nec Berl. (1892). Species sunt: *Glom. cingulata* (Ston.) S. et Sp. l. c. — *Gl. piperata* (Ston.) S. et Sp. l. c. — *Glom. cincta* (Ston.) S. et Sp. l. c. — *Glom. rubicola* (Ston.) S. et Sp. l. c. — *Glom. fructigena* (Clint.) Sacc. (*Gnomoniopsis fructigena* Clint. Bull. of Ill. Exp. St. Urbana, 1902). Cll. Schrenk et Spaulding specierum paternitatem adscribunt auctoribus, qui status conidicos (*Glœosporium* et *Colletotrichum*) tantum descripserunt, st. ascophorum ne quidem suspicantes; quod nobis injustum et falsum videtur. Etiam incorrectum et prope ridiculum videtur scribere *Glomerella cinctum* nec *Gl. cincta* et multa alia similia (ut nonnulli botanici americani) ex eo quod status conidiophorus est *Glœosporium cinctum* e gen. neutro.

LÆSTADIA *) Auersw. — Syll. I p. 420. IX 577, XI p. 289, VIV p. 516, XVI p. 455.

1. **Læstadia Berberidis** Delacr. — Syll. IX, p. 584. — var. **Spirææ** 1922
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 254. — A typo differt perithecis nigris nec brunneis, 100–180 μ. diam.; ascis oblongo-ellipsoideis, 55 × 13-15, nec clavatis sporidiisque levibus, nec granulosis, 21–18 × 5–5,5.

Hab. in ramulis siccis Spirææ spec. Luxemburg.

2. **Læstadia Briosiana** Magnaghi, Contrib. Micol. Ligustica pag. 3. 1923
(Atti Ist. Bot. Paris vol. VIII, 1902). — Perithecis subepidermicis, dein erumpentibus, copiosis, sparsis v. aggregatis, globoso-depressis, nigris. 140-150 μ. diam.; ascis elongatis, breve stipitatis, aparaphysatis 45-46 μ. long., octosporis; sporidiis oblongo-fusoideis, utrinque acutis, 17-19 × 8-9, hyalinis, intus granulosis.

Hab. in ramis emortuis Puerariæ spec., Cornigliano, Liguria.

3. **Læstadia mirabilis** Fl Tassi Bull. Lab. Ort. Bot. Siena 1901, IV, 1924
p. 7. — Perithecis sparsis, nigris, epidermide velatis, nitidis, 80-

*) Quod ad nomen *Læstadiæ* pertinet cfr. Syll. tang XI pag. 289 (nota). Rationibus ibi datis, etiam nomen *Guigniardia* Viala et Rav. (1892 superfluum evadit.

100 μ. diam.; ascis clavulatis, subsessilibus, 50-60 × 10-15; sporidiis distichis, ellipsoideis, continuis, utrinque minute pluriguttulatis, 10-12 × 4 hyalinis.

Hab in caulibus putrescentibus Mirabilis Jalapæ, in horto botanico Siena Italiæ centr.

4. **Læstadia rosicola** (Feltgen) Sacc. et D. Sacc. *Guignardia rosicola* Feltgen Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 254. — Peritheciis gregariis epidermide immutata, pustulata, tectis, depresso-globosis, siccis infra concavis, ostiolo minuto, acuto erumpentibus 200-300 μ. diam.; ascis oblongo-clavatis, apice rotundatis, tenuato-stipitatis, fasciculatis, 4-6-8-sporis, 21-27 × 5,5-7; sporidiis distichis oblongis vel ellipsoideis, continuis, hyalinis, eguttatis, 4-5 × 2-2,5. 1925

Hab. in ramis siccis, corticatis Rosæ caninæ, Luxemburg.

5. **Læstadia Oxyriæ** Rostr. Islands Svampe in Bot. Tidsskrift, Copenhagen 1903, p. 300. — Peritheciis caulicolis, gregariis, minutissimis, lenticularibus; ascis fusoideo-clavatis, aparaphysatis, 35-40 × 6, octosporis; sporidiis fusoideo-oblongis, 9-10 × 2-3. 1926

Hab. in caulibus Oxyriæ digynæ, in Islandia.

6. **Læstadia insidiosa** Massee, Kew. Bull. 1901, p. 157. — Peritheciis epiphyllis, semiimmersis, discoideis, atris, plus minus dense aggregatis, astomis, 300-350 μ, diam.; ascis clavatis sæpe curvatis, apice obtusatis, octosporis 150 × 20; sporidiis distichis oblongo-ellipticis, hyalinis continuis (an semper?), 21-25 × 6-7; paraphysibus nullis. 1927

Hab. in foliis Medicaginis sativæ in Tasmania.

7. **Læstadia circumscissa** Sacc. Notæ mycol. in Syd. Ann. Mycologici 1903, n. 1, pag. 24. — Maculis subrotundis oblongisque amphigenis fusco-rufescentibus, demum arescendo circumscissis et dilabentibus; peritheciis subcutaneo-erumpentibus, gregariis, plerumque epiphyllis, globoso-lenticularibus, membranaceis, nigricantibus, glabris, 90-120 μ. diam, poro impresso pertusis; ascis tereti-clavatis, 50-65 × 9, apice obtusis, breve stipitatis, octosporis; paraphysibus genuinis nullis; sporidiis distichis, ovato-oblongis, sæpe inæquilateris, utrinque obtusulis, biguttatis granulosisque, 14-15 × 5-6, hyalinis. 1928

Hab. in foliis adhuc vivis Pruni spinosæ, Montello (Treviso) Italiæ bor. — Periphyses circa ostiolum radiantes angustissimæ, hyalinæ. — Nil obstat quominus hanc speciem habeamus tamquam statum ascophorum *Cercosporæ circumscissæ* Sacc. et forte quoque

Phyllostictæ circumscissæ Cooke pariterque morbum *shot-hole* generantem. Analogæ quoque sunt *Ovularia circumscissa* Sorok., *Phyllosticta Mattiroliana* Mc. Alpine (= *Ph. perforans* Sacc. et Mattirolo) et *Gnomonia circumscissa* Mc. Alpine.

8. **Læstadia Veronicæ** Rostr. Islands Svampe in Bot. Tidsskrift, 1903, 1929
vol. 25, p. 300. — Peritheciis biogenis, epiphyllis, dense gregariis, lenticularibus, siccis, cupulæ instar collabentibus 200 μ. diam.; ascis clavatis; sporidiis oblongis, curvulis, fere fabæformibus, 21-25 × 8-9, granulosis.

Hab. in foliis Veronicæ alpinæ in Islandia.

9. **Læstadia Prenanthis** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. 1930
— Maculis ellipticis vel irregularibus 3-5 mm. diam. brunneo-pallidis, linea subtilissima marginatis, peritheciis hypophyllis, sparsis, semierumpentibus, minutis, 50-60 μ. diam.; ascis oblongis, subsessilibus, utrinque abrupte constrictis, 30-35 × 6-7.; sporidiis distichis, fusoideo-oblongis, 3-guttulatis, hyalinis, 10-12 × 3-3,5.

Hab in foliis vivis Prenanthis crepidineæ, Alabama Amer.

10. **Læstadia Saxifragæ** Saccardo et Scalia, Harrim Alaska Exped. 1931
Crypt. p. 34, pl. IV, fig. 3. — Peritheciis epiphyllis, punctiformibus, in partibus marginalibus arescentibus foliorum sparsis, globosis, 100-130 μ. diam., poro pertusis; contextu parenchymatico fuscello; ascis cylindraceis vel cylindraceo-clavulatis, brevissime stipitatis, apice rotundatis, 60-80 × 10-13, aparaphysatis, octosporis; sporidiis distichis, oblongo-ellipsoideis, utrinque acutulis, 10-13 × 4,5-5,5, continuis, hyalinis.

Hab. in foliis viventibus Saxifragæ parvifloræ, Unalaska Alaska. — Pluribus affinis, sed videtur satis distincta. Asci tantum e basi perithecii oriundi.

11. **Læstadia prominens** (Earle) Sacc. et D. Sacc. *Guignardia pro-* 1932
minens Earle in Muhlenbergia, 1901, pag. 15. — Late sparsa et sæpe totum folium denique decoloratum occupans; peritheciis profunde immersis, utrinque prominulis 150-200 μ. diam.; contextu obscure parenchymatico; ostiolo indistincte pertuso sæpe parum manifesto; ascis subfasciculatis, longe tenuato-stipitatis, crasse tunicatis, parte sporifera 50-60 × 25; paraphysibus nullis; sporidiis octonis inordinatis, hyalinis, continuis, ovoideis, 25 × 10, crasse tunicatis.

Hab. in foliis vivis Ægiphilæ martinicensis ex Verbenaceis, prope Santurce Portorico.

12. **Læstadia Ari** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. — 1933

Maculis subcircularibus, superne intense griseis, inferne brunneis 1 cm. diam., nigro-marginatis; peritheciis epiphyllis dense sparsis in parte centrali macularum, 100-110 μ. diam. subcuticularibus vel erumpentibus; ascis oblongo-cylindraceis, breve stipitatis 40-50 × 7-8; paraphysibus rudimentalibus; sporidiis distichis, subnaviculatibus 2-3-nucleatis, hyalinis, obtusis, 8-10 × 3.5-4.5.

Hab. in foliis vivis Ari arifolii quid?, Alabama Americæ. — Habitus *Vermicularieæ trichellæ*.

13. **Læstadia Tofieldiæ** Fl. Tassi Bull. Lab. Ort. Bot. Siena. 1901, IV. p. 7. — Perithecis dense gregariis, globoso-depressis, pertusis, nigris, epidermide tenuiter velatis 60-70 μ. diam.; ascis clavatis, sessilibus 40-50 × 8-10; sporidiis distichis, ovato-oblongis, 14-16 × 5-6, hyalinis. 1934

Hab. in foliis emortuis Tofieldiæ borealis, in Groenlandia.

14. **Læstadia seriata** (Bäumler) Sacc. et D. Sacc. *Guignardia seriata* Bäumler Beitr. z. Cryptog. Fl. des Presburger Com. 1902, p. 27. Perithecis immersis, tenui-membranaceis applanatis, obsolete ostiolatis 50-70 μ. diam., contextu minute parenchymatico, brunneo; ascis brevissime stipitatis, saccatis, octosporis, 36-45 × 10-12, basi fasciculatis; sporidiis ovoideis, utrinque rotundatis, deorsum leviter tenuatis, rectis, hyalinis, inordinatis, 10-12 × 3-3,5 1935

Hab. in vaginis vetustis Phragmitis communis in Com. Presburg Hungariæ.

15. **Læstadia alaskana** Reed Sacc. et D. Sacc. *Guignardia alaskana* Reed. Harrim Alaska Exped. Crypt. pag. 34, t. VII, Univ. Cal. Publ., Bot. I, 154 161. pl. 15, 16. — Perithecis laxe gregariis, innatis, globulosis, ostiolo impresso vix erumpentibus, 180-200 μ. diam.; ascis fusoideis brevissime obtuse stipitatis, apice obtuse attenuatis, aparaphysatis, octosporis 42-45 × 15-16; sporidiis subdistichis, ellipsoideis, utrinque rotundatis, continuis, eguttulatis, hyalinis, 10-12 × 4-4,5. 1936

Hab. parasitica in Prasiola boreali, Springs, Baranos Island, Alaska (Trelease et Kadiak, Unalaska. — Vix diversa a *L. Prasiolæ* Wint. — Syll. IX, p. 589.

Paralæstadia **Sacc. Species lichenicolæ.**

16. **Læstadia verrucicola** (Wedd.) Sacc. et D. Sacc. *Sphæria verrucicola* Wedd. Nouv. Rev. des Lich. 1873, p. 22. — Perithecis 50-100 μ. diam., immersis, nigris; ascis octosporis, paraphysibus nullis 1937

obvallatis; sporidiis unicellularibus ellipsoideis, hyalinis, 18-30 × 10-15.

Hab. in thallo Aspiciliæ cinereæ v. albæ, Agde Galliæ.

17. **Læstadia conductrix** (Norm.) Sacc. et D. Sacc. *Verrucaria conductrix* Norm. Flora 1866, p. 284. — Peritheciis erumpentibus, 120-150 μ. diam. subglobosis, nigris, nitidulis, ostiolo simplici demum pertusis; ascis octosporis jodo rubro-tinctis, aparaphysatis, 50 μ. long.; sporidiis continuis, hyalinis, 10-12 × 3, elliptico-fusoideis, intus granulosis. 1938

Hab. in thallo Psoræ luridæ prope Tromsö Norvegiæ. — Ob reactionem jodi potius lichen, observante auctore.

SPOLVERINIA Mass. in Flora 1856, n. 18 (Etym. a March. J. B. Spolverini (1695-1759) veronensi, qui poëtice scripsit « La coltivazione del riso »). — Perithecia punctiformia, sicca depressa, uda turgescentia subglobulosa, clausa, dein apice irregulariter fatiscentia; contextu tenui, membranaceo-carnosulo. Asci ampli vesiciformes, omnino aparaphysati, 1-2-spori. Sporidia ovoidea, magna, continua, hyalina v. pallide colorata. — In hypothecio adsunt gonidia quædam testib. Mass. et Körb., tamen ob vitam parasiticam in thallis alienis, forte gonidia non sunt propria. Cl. Heufler aliique ad fungos, rectius forte, genus referunt.

1. **Spolverinia punctum** Mass. l. c., Sched. crit. p. 61, Lich. exs. n. 59. 1939
— Peritheciis perexiguis, castaneo-cervinis, parasiticis, udis subsphæricis, solitariis, subsuperficialibus; ascis amplis, breviter stipitatis inflatis, bi- rarius unisporis, aparaphysatis; sporidiis subgloboso-ovoideis, 56-70 × 24-36 (Beltramini) v. 24-70 × 18-36 (Massalongo) e hyalino dilute croceis, intus nubilosis.

Hab. in thallis crustosis variis e. g. Polyblastiæ orbicularis, ad rupes in agro Veronensi et Bassanensi Ital. super.

PHOMATOSPORA Sacc. — Syll. I p. 432, IX p. 589, XI p. 291, XIV p. 519, XVI p. 456.

1. **Phomatospora Wistariæ** Ell. et Ev. in Journ. of Myc. 1902, p. 68. 1940
— Peritheciis fere semper epiphyllis, parvulis rotundatis, subdepressis, membranaceis 110-120 μ. diam. in maculis 2-4 mm. diam. griseis, margine nigro tenui cinctis, sæpe confluentibus insidentibus; ascis oblongis, sessilibus, 35-45 × 10-12, aparaphysatis; sporidiis distichis, oblongo-ellipticis, hyalinis, utrinque rotundatis 12 × 6.

Hab. in foliis Wistariæ frutescentis, Alabama Americæ.

2. **Phomatospora Hederæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 127. — Peritheciis sparsis v. hinc inde approximatis, basi ligno insculptis, cortice nidulantibus et epidermidem papilla brevi conica erumpentibus, depresso-globosis v. ellipsoideis, minutissimis, nigris; ascis cylindricis, tenuibus, deorsum stipitiformi-tenuatis, octosporis, 65 × 2,5-3,5, aparaphysatis; sporidiis monostichis oblongo-ellipsoideis vel breve cylindraceis, rectis, hyalinis, 5-8 × 2-2,5. 1941

Hab. in ramis siccis Hederæ Helicis, Luxemburg. — *Ph. Berberidis* proxime affinis.

3. **Phomatospora Elasticæ** Zimm. in Bull. de l'Inst. bot. de Buitenz. 1901, p. 15. — Peritheciis amphigenis, sparsis, immersis, sine stromate, ostiolo conico vix emergentibus, nigris 120 × 65, albo-papillatis; ascis brevibus, breve pedicellatis, obtusis, octosporis 45 × 8; sporidiis hyalinis, elongatis, obtuse rotundatis, 16 µ. longis; paraphysibus nullis. 1942

Hab. in foliis putrescentibus Fici Elasticæ, Buitenzorg, in insula Java.

4. **Phomatospora secalina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 155. — Peritheciis gregariis vel sparsis, innatis, globosis, ostiolo acuto, minuto erumpentibus, atro-brunneis, membranaceo-carbonaceis 250-350 µ. diam.; contextu parenchymatico brunneo; ascis cylindricis apice obtusis, incrassatis, bifoveolatis, jodo vix tinctis, longe stipitato-tenuatis, octosporis, aparaphysatis 95-108 × 8-10; sporidiis recte vel oblique monostichis, raro distichis, tereti-ellipsoideis, utrinque rotundatis, rectis, continuis, biguttatis, 11-15 × 5-6, hyalinis. 1943

Hab. in culmis putridis secalinis, Luxemburg. — Proxime affinis *Phomatosporæ Arenariæ.*

STIGMATULA Sacc. — Syll. I p. 543 (ut subgenus), XVI p. 454.

1. **Stigmatula applanata** Feltgen. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 255. — Peritheciis sparsis, primo epidermide tectis, mox erumpentibus et subliberis, orbicularibus, superne convexo-applanatis, papilla minutissima donatis, basi applanatis, nigris, minute granulosis, carbonaceo-fragilibus, 200-400 µ. diam.; ascis tereti-clavatis, apice rotundatis, brevissime stipitatis 87-95 × 13-16, 6-8-sporis; sporidiis monostichis vel subdistichis, obtuse ellipsoideis, rectis, continuis, biguttatis, hyalinis, demum flaveolis, 15-17 × 5-6; paraphysibus ascos superantibus, ramulosis, 1-2 µ. cr. hyalinis. 1944

Hab. in ramulis et squamulis Juniperi virginianæ, Luxemburg.

PHYSALOSPORA Niessl — Syll. I p. 433, IX p. 591, XI p. 291, XIV p. 520, XVI p. 457.

1. **Physalospora borealis** Saccardo, Harrim. Alaska Exped. Crypt. p. 33, pl. IV, fig. 4. — Peritheciis laxe gregariis, subcutaneis, dein erumpentibus, globulosis, papillatis, nigris, 3-5 mm. diam., contextu parenchymatico, duriusculo, fuligineo; ascis cylindraceis, basi tenuatis brevissimeque stipitatis, apice obtusis, 70-75 × 5-6, octosporis; paraphysibus parcis, brevibus; sporidiis oblique monostichis, oblongo-ovoideis, lenissime inæquilateris, 9-10 × 4-5, utrinque obtusulis, intus granulosis, hyalinis. 1945

Hab. in caulibus emortuis Anemones, socia *Stagonospora Pulsatillæ*, Kukak Bay, Alaska (Saunders).

2. **Physalospora macrospora** Feltgen, Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 253. — Peritheciis gregariis, confertis, omnino innatis, globosis, ostiolo papillato erumpentibus, nigris, 200-300 μ. latis; ascis ellipsoideo-clavatis, deorsum tenuato-stipitatis v. subsessilibus 75-100 × 25-30, octosporis, paraphysatis; sporidiis distichis, obtuse ellipsoideis, continuis, hyalinis, biguttatis vel eguttatis, 20-32 × 10-13. 1946

Hab. in ramis, emortuis corticatis Aceris campestris, Luxemburg.

3. **Physalospora Serjaniæ** Rehm, Hedw. XLIV (1904) p. 5. — Maculis plerumque epiphyllis, exsiccatione fuscatis, distincte orbicularibus, dilutissime nigritule cinctis, rubro-fuscis; peritheciis 1-7 innatis, discretis, globulosis, nigris, demum in epiphyllo peridermio subtectis prominentibus, ostiolo minuto papillæformi pertuso, in hypophyllo flavidule conspicuis, subcarbonaceis 0,2 mm. diam.; ascis cylindraceis, apice rotundatis, 80-85 × 10-12, 8-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, hyalinis, 12-14 × 6-7 monostichis; paraphysibus filiformibus, hyalinis, 2-3 μ. cr. 1947

Hab. ad folia Serjaniæ, Corcovado-Rio Brasiliæ (Ule).

4. **Physalospora Trabutiana** P. Henn. in Hedw. 1901, pag. 100. — Syll. XVI, p. 1132 (nomen). — Caulicola; peritheciis gregariis, innatis epidermide tectis, submembranaceis, globulosis, atris, ca. 0,3-0,5 mm. diam., interdum confluentibus, ostiolo erumpente prominulo, subnitenti vel pertuso; ascis clavatis, apice crasse tunicatis, rotundato-obtusis, interdum basi usque ad 30 × 6 μ. pedicellatis, 1948

octosporis, 100-170 × 18-23; paraphysibus copiosis filiformibus, hyalinis 3 μ. cr.; sporidiis oblique monostichis vel subdistichis, ellipsoideis, utrinque obtuse rotundatis, interdum attenuatis v. subacutiusculis, primo nebulosis, dein 1-2 guttulatis, hyalinis v. subtiliter flavescentibus, 15-20 × 7-10, interdum mucosis.

Hab. in caulibus Cachrydis tomentosæ, Algeria Afr.

5. **Physalospora Bupleuri** P. Henn. Hedw. 1902, p. 135. — Perithecis 1949
sparsis sub epidermide nidulantibus, dein ostiolis erumpentibus, membranaceis, subglobosis, atro-brunneis; ascis clavatis, obtusis, basi attenuato-stipitatis, octosporis 50-65 × 6-8; paraphysibus filiformibus, hyalinis, septatis 2,5-3,5 μ. crassis; sporidiis oblique monostichis, oblonge ovoideis, interdum subfusoideis, hyalinis, bi-guttulatis 5-8 × 3-4.

Hab. in caulibus Bupleuri ranunculoidis, in horto botanico Berolinensi Germaniæ.

6. **Physalospora mararyensis** P. Henn. Amaz. IV, in Hedw. 1905, 1950
p. 63. — Maculis rotundatis vel effusis sæpe confluentibus explanatis, fuscis; perithecis sparsis vel subgregariis, punctiformibus, innato-erumpentibus, subglobosis, atro-membranaceis, pertusis; ascis fusoideis vel clavatis apice attenuatis, rotundatis vel subacutiusculis, 50-65 × 8-10, 8-sporis; paraphysibus filiformibus, hyalinis; sporidiis subdistichis, oblonge fusoideis, utrinque rotundatis, hyalinis 18-20 × $3^1/_2$-4.

Hab. in foliis Papilionaceæ? cujusdam, Marary, Rio Juruá Amazoniæ.

7. **Physalospora atro-inquinans** Rehm, Hedw. XLIV (1904). — Peri- 1951
theciis in maculis epiphyllis orbicularibus, vix decoloratis, 1 cm. lat. gregariis sub epidermide denigrata nidulantibus eamque elevantibus, globulosis, demum denudatis, poro vix perspicuo pertusis, atris, membranaceis, 0,1 mm. diam.; ascis cylindraceis, apice rotundatis, 60-70 × 10-12, 4-sporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, guttulis oleosis repletis, hyalinis, 15 × 9 monostichis; paraphysibus subramosis, septatis, 2 μ. cr.

Hab. ad folia viva Papilionaceæ (Phaseoli) Sao Francisco Brasiliæ. — Affinis *Ph. Astragali*, peritheciis mox erumpenti-nudatis dignoscitur.

8. **Physalospora Phaseoli** P. Henn. Fungi Amaz. III, 1904, p. 368. 1952
— Maculis rotundatis vel confluentibus, flavidis; perithecis epiphyllis gregarie sparsis, sublenticulari-globulosis innatis, papilla atra erumpentibus, subatro-membranaceis, ca. 50-70 μ. diam.; ascis

clavatis, obtusis, 8-sporis, paraphysatis, 40–60 × 10-15; sporidiis subdistichis vel oblique monostichis, late ellipsoideis vel subovoideis, hyalinis, 8-10 × 8.

Hab. in foliis Phaseoli, Rio Juruá St. Clara Amazoniæ.

9. **Physalospora machaeriicola** P. Henn. Fungi Amaz. II, p. 243. — 1953
— Maculis effusis brunneolis; peritheciis in maculis albidis, rotundato- vel oblongo-angulatis sparse v. gregarie erumpentibus, subhemisphæricis vel lenticularibus, pertusis, atro-membranaceis, ca. 60 μ. diam.; ascis clavatis vel fusoideis, apice obtusis vel apiculatis, stipitatis, 8-sporis, 45-60 × 8-12; paraphysibus filiformibus hyalinis; sporidiis subdistichis, ellipsoideis vel subfusoideis, hyalinis, 5-8 × 3-4.

Hab. in foliis Machaerii spec. Fortaleza, Rio Juruá Brasiliæ et Tarapoto Perù.

10. **Physalospora vagans** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. 1954
— Peritheciis sparsis vel 3-5-congestis, membranaceis parenchymaticis, nigris, erumpentibus, 100-200 μ. diam.; ascis clavato-cylindraceis 110-200 × 12-20, breve stipitatis et obscure paraphysatis; sporidiis monostichis v. distichis, ellipticis, 12-20 × 8-12, hyalinis; conidiis constricto-ellipticis, hyalinis, 15-20 × 7-8; basidiis 12-20 × 1,5.

Hab. in sarmentis emortuis Rubi strigosi, Alabama, Amer.

11. **Physalospora minima** Ell. et Ev. in Journ. of Mycol. 1902, v. 8, 1955
p. 17. — Peritheciis sparsis, subcutaneis, per ostiolum parvum erumpentibus, 80-90 μ. diam.; ascis oblongo-clavatis, breve stipitatis, paraphysatis, 40-50 × 6; sporidiis inordinate dispositis, ellipticis vulgo utrinque acutulis, 9-11 × 3-4.

Hab. in sarmentis Rubi strigosi, Tuskegee, Ala, in Amer. bor. (G. W. Carver).

12. **Physalospora circinans** Pat. in Bull. Soc. Mycol. 1902, p. 302. 1956
— Peritheciis epiphyllis, globosis, 150-300 μ. diam., epidermide leniter nigrificata tectis, dein semierumpentibus, atris, macula fusca, orbiculari, 3-4 mm. lata insidentibus; contextu celluloso, coriaceo-membranaceo, pallide brunneo; nucleo albo; ascis cylindraceo-clavatis, sursum obtusis deorsum brevissime pedicellatis, octosporis, 60-80 × 12-15; paraphysibus filiformibus ramosis; sporidiis monostichis v. irregulariter distichis sæpe transverse positis, ovato-rotundatis, continuis, hyalinis 9 × 6.

Hab. in foliis vivis Ardisiæ spec. in Brasilia (Glaziou).

13. **Physalospora Escalloniæ** P. Henn. in [illegible] 1957

culis atris, epiphyllis, sub epidermide gregarie nidulantibus, subglobosis, atris, membranaceis, ca. 200 μ. diam., ostiolis erumpentibus; ascis clavatis, apice rotundatis, tunicatis, octosporis, 50-70 × 14-18; paraphysibus filiformibus, hyalinis; sporidiis subdistichis vel oblique monostichis, fusoideis, continuis, 12-18 × 4-5, hyalinis.

Hab. in foliis Escallonіæ chlorophyllæ, S. Paulo Brasiliæ.

14. **Physalospora Lepachydis** Ell. et Ev. in Journ. of Mycol. 1902, p. 16. — Peritheciis epiphyllis, gregariis, semierumpentibus, 250 μ. circ. diam.; ostiolo papilliformi ornatis; ascis cylindraceis, breve stipitatis, paraphysatis, 60-65 × 8-12; sporidiis monostichis v. distichis, utrinque late obtusis, binucleatis, 10-12 × 5-6. 1958

Hab. in parenchymate exsiccato foliorum vivorum Lepachydis columnaris, Billings Amer. bor. (Williams et Griffiths).

15. **Physalospora manaosensis** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 63. — Maculis sparsis vel gregariis rotundatis, alutaceis, rugulosis, 1-3 mm. diam.; peritheciis epiphyllis singularibus vel pluribus innatis, ostiolo atris, punctiformibus erumpentibus ca. 60-80 μ., atro-membranaceis; ascis subfasciculatis, clavatis, apice rotundatis, 8-sporis, 40-45 × 8-12; paraphysibus filiformibus, superantibus, hyalinis; sporidiis oblique monostichis vel subdistichis, ovoideis vel ellipsoideis, hyalinis, continuis, intus minute granulatis, 8-10 × 4-5. 1959

Hab. in foliis coriaceis Lauraceæ? frutescentis, Rio Negro, Manáos Amazoniæ. — Maculis alutaceis epiphyllis, omnino peculiaribus mox dignoscenda species.

16. **Physalospora juruana** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 63. — Maculis late effusis, flavido-fuscidulis; peritheciis hypophyllis gregariis, innatis, dein apice erumpentibus, atris, ca. 60-80 μ. subglobosis, membranaceis; ascis clavatis apice obtusis, 8-sporis, 30-40 × 5-6, paraphysibus filiformibus, hyalinis ca. $1^1/_2$ μ. crassis; sporidiis subdistichis oblongis subfusoideis, hyalinis, 6-8 × $2-2^1/_2$. 1960

Hab. in foliis Lauraceæ cujusdam, Rio Juruá Amazoniæ.

17. **Physalospora Pittospori** d'Alm. et da Cam. Revista agron. Lisboa, 1903, n. 4, pag. 138, tab. X, fig. 5-7. — Peritheciis sparsis, ad apicem foliorum in macula arida, epidermide tectis, demum erumpentibus, hypophyllis vel raro epiphyllis, globoso-depressis, atris, ostiolo prominulo, 150-200 × 180-190; ascis tereti-clavulatis, brevissime stipitatis, 135-140 × 20-25, octosporis; sporidiis submono- 1961

stichis, ovoideis, granulosis, 20-25 × 7,5-12; paraphysibus sinuosis, septatis.

Hab. in foliis Pittospori spec., prope Cruz Quebrada Lusitaniæ (Castro Guedes).

18. **Physalospora Xylomeli** P. Henn. F. Australiæ occid. I, in Hedw. 1962
1901, p. 96. — Syll. XVI, p. 1132. (nomen). — Maculis effusis, cinereis, exaridis; peritheciis sparsis innatis, erumpentibus, lenticularibus, atris, breve papillatis, epidermide fissa velatis, contextu pseudo-parenchymatico, atro; ascis cylindraceo-clavatis, apice obtusis, basi attenuatis, octosporis, 115-135 μ. longis, p. sporif. 110-120 × 10-11; paraphysibus filiformibus, hyalinis ca. 4 μ. crassis; sporidiis oblique monostichis, fusoideis, utrinque subacutis, 2-3-guttulatis, continuis, 16-20 × 7-10 hyalinis.

Hab. in foliis Xylomeli occidentalis, Perth Australiæ occ.

19. **Physalospora Empetri** Rostrup. Fungi in Botany of the Faeröes 1963
1901, part. I, p. 310. — Peritheciis epiphyllis, sparsis; ascis cylindraceis; sporidiis octonis, monostichis, ellipsoideis, simplicibus, 18-20 × 10-12, hyalinis.

Hab. in foliis Empetri nigri, Syderö, Frodebö in insulis Feroensibus Daniæ.

20. **Physalospora dissospora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 1964
1901, II, p. 180. — Peritheciis solitariis vel 2-pluribus confertis, cortice nidulantibus, basi ligno insculptis, ceterum subliberis, globosis, minute papillatis, membranaceo-carbonaceis, nigris, 150-200 μ. lat.; ascis cylindricis, rectis curvulisve, sessilibus, rarius brevissime stipitatis 52 × 5, filiformi-paraphysatis; sporidiis monostichis ellipsoideis, utrinque oblique obtusatis, sæpius longitudinaliter connato-binis, hyalinis, vulgo crasse 1-guttatis minuteque guttulatis vel 2-4-guttulatis, 8-9 × 4,5-5.

Hab. in ramis emortuis Callunæ vulgaris, Luxemburg. — Cum *Physal. Callunæ* ne comparanda quidem.

21. **Physalospora confinis** Sacc. et D. Sacc. Atti Ist. Ven. Sc. Lett. 1965
ed Arti, tomo LXI, Venetiis 1902, p. 721. — Peritheciis sparsis v. gregariis, minutis 200-250 μ. diam., globosis, epidermide tectis, atris, ostiolo papillulato, epidermidem perforante; contextu perithecii celluloso, fuligineo; ascis subcylindraceo-fusiformibus, 80-90 × 12-14; sporidiis distichis v. raro monostichis, ellipticis, utrinque obtusis, 18-21 × 7, granulosis, hyalinis.

Hab. in caule sicco Amsoniæ latifoliæ, in horto botanico Bologna Italiæ sept.

22. **Physalospora bifrons** Starb. in Arkiv. för Botan. 1904, Band 2, p. 17, fig. 40-42. — Peritheciis epiphyllis, sed utrinque manifeste prominulis, in maculis varie, interdum orbiculariter, semper indistincte determinatis, paullum pallescentibus, sine ordine sparsim aggregatis, solitariis v. interdum aliquot confluentibus, sphæroideis, contextu solidiusculo, coriaceo-carbonaceis, nigris, levibus, vix ostiolatis, 150-200 μ. diam.; ascis ovoideis vel ovoideo-fusiformibus, sessilibus, sursum lumine angustiore, membrana incrassata, 50-60 × 14-19; sporidiis octonis, conglobatis, ovoideis vel fusiformibus, sæpe inæquilateralibus vel curvulis, interdum biguttulatis, annulo mucoso, tenuissimo, utrinque minute et oblique appendiculato præditis, apicibus obtusis, hyalinis, 19-25 × 5-6,5; paraphysibus filiformibus, hyalinis, mucilaginosis, confluentibus, numerosis. — Spermatia bacillariba vel anguste clavulata, hyalina 10-14 × 1,5 adsunt. 1966

Hab. ad folia dicotyledonea in silva primæva, Colonia Elisa, Paraguay (Lindman). — Forma peritheciorum *Ph. quercifoliæ* Ell. et Ev. affinis videtur, sporidiis tamen distincta.

23. **Physalospora varians** Starb. in Arkiv. för Botan. 1904, Band 2, pag. 18, fig. 43-46. — Maculis primo viridi-luteis vel paullum decoloratis, arescendo fuscis, vage determinatis, rotundatis 0,1-2 cm. diam.; peritheciis in maculis insidentibus, copiosioribus epiphyllis, nonnullis hypophyllis, primo innatis, dein erumpentibus, globulosis vel basi applanato-lenticularibus, dense aggregatis vel peripherice dispersis, in seriebus rectis v. curvatis partitis, pulchre ordinatis, demum confluentibus, contextu coriaceo, atratis, nitide verruculosis 200-300 μ. diam.; ascis cylindraceis vel clavato-cylindraceis 90 × 13, p. spor. 55-65 μ. long. v. ovoideis sessilibusque 43 × 19; sporidiis octonis, distincte monostichis, sæpe conglobatis, medio tristichis, late ellipsoideis, nebulosim guttulatis, 10-11 × 7, 5-9; paraphysibus mucilaginosis, guttulatis, hyalinis. 1967

Hab. in foliis vivis ignotis, Santa Cruz da Barra, Matto Grosso, Brasiliæ (Lindman). — Peritheciorum ordine, ascorum varia forma distincta species.

24. **Physalospora Fourcroyæ** P. Henn. in Notizbl. des Königl. bot. Gartens u. Museum zu Berlin n. 30, 1903, pag. 240. — Maculis fuscidulis effusis; peritheciis amphigenis gregariis, innatis tectis dein suberumpentibus, globoso-lenticularibus, coriaceo-subcarbonaceis, atris, cellulosis, ostiolatis dein perforatis, ca. 180-240 μ.; ascis oblonge clavatis, apice rotundatis, crasse tunicatis, basi attenuatis, 1968

curvulis, 8-sporis, 150-180 × 25-30, paraphysibus hyalinis, myceliioideis, ca. 3 μ. crassis; sporidiis subdistichis, oblongis, rectis vel curvulis, utrinque obtusis, hyalinis, 3-guttulatis, 20-30 × 10-15.

Hab. in foliis Fourcroyæ giganteæ, Dar-es-Salâm, Afr. orient. germ. (Dr. Zimmermann).

25. **Physalospora Vanillæ** A. Zimmerm. in Centralbl. f. Bakter. Abt. II, 1902, VIII, pag. 479, fig. 8. — Peritheciis numerosis sed discretis, amphigenis, primo immersis, demum erumpentibus, globosis, atro-brunneis, in ostiolum conicum crassum attenuatis, papilla pallidiore, 250 μ. altis, 120-200 μ. latis; ascis octosporis, obtusis; sporidiis tereti-fusoideis, curvatis, utrinque obtusulis, hyalinis, 24-28 × 5-6, intus granulosis. 1969

Hab. in foliis putridis Vanillæ planifoliæ in horto Buitenzorg Javæ insulæ. — A *Phys. camptospora* forma peritheciorum in primis diversa.

26. **Physalospora Cattleyæ** Maubl. et Lasnier, Bull. Soc. Mycol. 1904, pag. 171, tab. 12. — Peritheciis sparsis vel gregariis, plerumque simplicibus, sed interdum bilocularibus, hypophyllis, rarius epiphyllis, subglobosis, ostiolo prominulo conico, 300 μ. diam.; ascis subfusoideis, utrinque attenuatis, stipitatis, 100-120 × 11-13, octosporis; sporidiis distichis v. oblique monostichis, oblongis, plerumque inæquilateralibus et subcurvulis, pallide luteolis, 1-guttulatis granulosisque 20-25 × 5-7; paraphysibus filiformibus asco longioribus, evanidis 3 μ. cr. 1970

Hab. in foliis emortuis Cattleyæ Mossiæ in calidariis prope Parisios Galliæ. — Stat. conid. *Glœosporium Cattleyæ* quod cfr. An generi *Glomerellæ* adscribenda species?

27. **Physalospora Agaves** P. Henn. in Engl. Bot. Jahrb. 1903, p. 51. — Maculis fuscidulis dein centro pallidulis, effusis; peritheciis amphigenis gregariis, globoso-lenticularibus, innatis, epidermide tectis, vix erumpentibus, ostiolo brevissimo dein perforatis, atris, coriaceis; ascis clavatis, apice tunicatis, rotundatis, 8-sporis 80-100 × 20-25; sporidiis distichis, oblonge ellipsoideis, utrinque obtusis, hyalinis, 26-32 × 10-12. 1971

Hab. in foliis Agaves sisalanæ, Dar-es-Salam-Zanzibar Afr. orient. (Zimmermann).

28. **Physalospora Alismatis** Feltg. Vorst. Pilz. Luxemb. Nachtr. II, 1901, p. 179. — Peritheciis sparsis, innatis, demum vertice erumpentibus, globosis, basi applanatis, siccis leniter collapsis, minute papillatis, nigris, 200 μ. cr.; ascis clavatis, apice obtusis, basi ob- 1972

tus- tenuatis, 40-45 × 7-8, octosporis; sporidiis distichis, oblongo-ellipsoideis cylindraceis, utrinque obtusis, continuis, hyalinis, biguttulatis 8,5-10 × 2,5; paraphysibus filiformibus, apice leviter incrassatis (1,5 μ.), ascos vix superantibus, hyalinis.

Hab. in caulibus siccis Alismatis Plantaginis, Luxemburg.

29. **Physalospora microspora** Feltg Vorstud. Pilz. Luxemb. Nachtr. 1973
II. 1901, p. 178. *Phomatospora therophila* Feltg. Vorst. Pilz. Lux. Nachtr. I, p. 208, non (Desm.) Sacc. — Peritheciis vulgo seriatis, subsparsis, maculas ustulatas generantibus, sublenticularibus, atro-brunneis, ostiolo punctiformi erumpentibus; ascis tereti-clavulatis, longiuscule stipitatis, 45-57 × 4,5-5,5; paraphysibus copiosis, filiformibus, septatis; sporidiis 3,5-5,5 × 1,8-2,6, ovoideis, continuis, hyalinis, intus æqualiter farctis.

Hab. in calamis siccis Luzulæ albidæ, Luxemburg. — Proxime affinis *Ph. paraguaxæ* Speg.

30. **Physalospora necans** Rehm in Hedw. 1901, p. (105). — Peri- 1974
theciis dispersis, primitus immersis dein emergentibus, globulosis, glabris, minutissime papillulatis, nigris, contextu parenchymatico fusco, 150 μ. diam.; ascis fusoideis 60-80 × 9, sessilibus, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, haud acutatis, 1-cellularibus, interdum 1-2-guttulatis, hyalinis, 15-18 × 3, distichis; paraphysibus filiformibus 2 μ. diam.

Hab. ad rachidem Lycopodii annotini prope Eibsee Bavariæ (Doct. Rehm).

Sporophysa Sacc. Species lichenicolæ *).

31. **Physalospora insularis** (Mass). Sacc. et D. Sacc. *Placidium* (Ver- 1975
rucaria) *insulare* Mass. Sert. lichen. in Lotos 1856, p. 78. — Peritheciis minutis omnino immersis, atris, tandem protuberantibus thallumque breviter bullatum reddentibus; ascis clavatis, paraphysibus absoletis obvallatis; sporidiis octonis ovoideo-subrotundis, diaphanis, nubilosis, 9 × 6.

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*) De quæstione ascophytarum permultarum in Lichenibus parasiticarum, an funginæ v. lichenosæ considerandæ sint contributiones jam numerosas habemus cll. Lindsay, Arnold, Winter, Rehm, Zopf etc., sed multum restat ut opus absolvatur; multæ species a cll. Lindsay et Arnold enumeratæ ut fungi lichenicolæ et hic omissæ, denuo scrutandæ sunt. Ad species plurimas jam in Sylloge receptas, in hoc volumine plures aliæ adduntur et breviter describuntur, quarum elenchum cl. prof. Lindau benevole communicavit. Ad genera fungina propiora ad interim retulimus, sed non absque ambiguitatibus permultis.

Hab. in thallo Aspiciliæ calcareæ ad saxa calcarea in agro Veronensi Ital. bor. Maculas insulares efformat.

32. **Physalospora Xanthoriæ** (Wedd.) Sacc. et D. Sacc. *Sphæria Xanthoriæ* Wedd. Nouv. Rev. des Lich. Agde. 1873, p. 22. — Peritheciis immersis 300-400 μ. diam.; ascis filiformi-paraphysatis, 6-8-sporis; sporidiis ellipsoideis 10-12 × 5-6, continuis, hyalinis. 1976

Hab. in thallo Xanthoriæ parietinæ, Agde Galliæ.

33. **Physalospora Aspiciliæ** (Wain.) Zopf, Hedw. 1896, p. 317, *Verrucaria Aspiciliæ* Wainio Adjum. Lich. Lapp. II, p. 179 (1883). — Peritheciis semiimmersis, nigricantibus, 300 μ. diam., poro pertusis; ascis cylindraceo-clavatis, laxe tenuiter paraphysatis, octosporis, jodo cærulescentibus; sporidiis ellipsoideo-oblongis, 10-17 × 5-7. 1977

Hab. in thallo Aspiciliæ Myrini v. subadunantis in Karelia rossica.

TRABUTIA Sacc. et Roum. — Syll. I p. 449, IX p. 601, XI p. 293, XVI p. 463.

1. **Trabutia? Mauritiæ** (Mart.) Sacc. *Sphæria* (Conferta) *Mauritiæ* Martius, Versuch eines Comment. in Werk. Marcgrav und Piso. München (Akad. Wiss., 1853) p. 225. — Gregaria, longitudinaliter seriata, erumpens, atra; stromate elongato-lineari turgido inæquali, verruculoso, compagine spissa carbonacea; peritheciis sparsis, immersis, globosis, atris, tandem ore amplo hiantibus, ante aperitionem vertice levigato nitidiusculo insignibus; ascis tenuissimis, linearibus, longiuscule pedicellatis, apice obtusis; sporidiis globosis uniseriatis. 1978

Hab. in foliis Mauritiæ flexuosæ, strias 5 cm. long. efficiens, Pará Brasiliæ.

WALLROTHIELLA Sacc. — Syll. I p. 455, IX p. 605, XI p. 294, XIV p. 524, XVI p. 465.

1. **Wallrothiella Myrtilli** Feltgen Vorstud. z. Pilz. Fl. Luxemburg, Nachtr. III, 1903, p. 285. — Peritheciis sparis v. subpulvinatis, verticaliter ellipsoideis, vertice rotundatis vel acutatis, basi matrice insculptis et epidermide rupta cinctis, atro-brunneis, extus rugulosis, firmis, 300-500 μ. diam.; ascis cylindraceis, rectis, longiuscule stipitatis 95 × 5-6, octosporis; sporidiis submonostichis oblongo-teretiusculis, utrinque rotundatis, rarius acutiusculis, rectis vel leniter curvatis, hyalinis, utrinque 1-guttulatis, 8.5-11 × 1,5-18; paraphysibus filiformibus ascos paullo superantibus 1-1,5 μ. cr. 1979

Hab. in ramulis corticatis Vaccinii Myrtilli, Luxemburg.

2. **Wallrothiella fraxinicola** Feltgen Vorstud. zur Pilz. Flora Luxemb. 1980
Nachtr. III, 1903, p. 286. — Peritheciis gregariis, superficialibus vel leviter adnatis, globoso-depressis, obtuse papillatis, rugulosis, carbonaceo-fragilibus, nigris 400-500 μ. diam.; ascis clavato-cylindraceis deorsum tenuatis, subsessilibus, parte spor. 27-35 × 7-8, sex-octosporis; sporidiis mono-distichis, tereti-ellipsoideis, continuis, hyalinis, 4-guttulatis, 8-11 × 2,5-3.

Hab. in cortice et ligno Fraxini, Luxemburg.

3. **Wallrothiella silvana** Sacc. et Cav. — Syll. XVI, p. 465. — var. 1981
mejospora Feltgen, Vorst. zur Pilz. Fl. Luxemb. Nachtr. III, 1903, pag. 284. — A typo præcipue differt hyphis basilaribus, ramosis, septatis, brunneis, perithecia cingentibus, sporidiis minoribus 8 × 2,5-3, teretiusculis.

Hab. in ramis decorticatis Fagi, Luxemburg.

4. **Wallrothiella melanostigmoides** Feltgen, Vorstud. z. Pilz. Fl. Lu- 1982
xemb. Nachtr. III, 1903, p. 285. — Peritheciis gregariis, in matrice denigrata et setulis brunneis conspersa superficialibus vel basi adnatis, hyphis brunneis cinctis, globosis v. globoso-conicis, nigris, glabris 100-150 μ. diam., ostiolo conico, anguste pertuso præditis; ascis cylindro-fusoideis, apice subrotundis, deorsum longe tenuato-stipitatis, octosporis, 80-100 × 8-10, filiformi-paraphysatis; sporidiis mono-distichis, ellipsoideis, obtusis, rectis, subinde inæquilateris, continuis, hyalinis, minute guttulatis, 16-19 × 4-5.

Hab. in ramis decorticatis putridis Quercus, Luxemburg. — *Wallr. melanostigmæ* affinis.

TRICHOSPHÆRIA Fuck. — Syll. I p. 452, IX p. 602, XI p. 293, XIV 523, XVI p. 463.

1. **Trichosphæria dryadea** Rehm, Hedw. 1903, p. (292). — Perithe- 1983
ciis sparsis, superiori foliorum exsiccatorum pagina immersis, demum sessilibus, globulosis, vertice setis numerosis, rectis, acutatis, fuscis c. 100 μ. long. 5 μ. lat., vestitis, atris, membranaceis 150 μ. diam.; ascis clavatis octosporis 80 × 20; paraphysibus nullis; sporidiis ovoideis 1-cellularibus, primitus gutta oleosa magna singula structis, dein granulis repletis, hyalinis, demum chlorinis 20-22 × 10-11, distichis.

Hab. ad folia præeuntis anni pendula Dryadis octopetalæ, prope Hinterbärenbad Tiroliæ (Doct. Rehm).

2. **Trichosphæria incisa** Morgan, Journ. of Mycol. 1904, p. 161. — 1984

Peritheciis superficialibus, gregariis, ovoideis, setulis longis, rectis pallide brunneis, vestitis, 300-400 μ. diam.; ascis octosporis, aparaphysatis, breve stipitatis, 55-65 × 8-9; sporidiis globosis v. ovoideis, hyalinis, levibus, 8-9 × 7-8.

Hab. in ligno vetusto Platani, Preston, Ohio, Amer. bor. — Setæ 100-150 μ. long. parce septatæ, fumosæ.

3. **Trichosphæria pulviscula** Feltgen, Vorstud. zur Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 281. — Peritheciis gregariis vel hinc inde confertis, omnino superficialibus, globosis, minute conico-papillatis; hyphis brunneis, rigidulis, septatis 40 × 5-6 vestitis, 150-200 μ. diam.; ascis cylindricis, stipitatis, octosporis 36-46 × 2 8; sporidiis recte monostichis, obtuse cylindraceis, continuis, biguttulatis, 4-5 × 2,5. 1985

Hab. in ligno putrescente Coniferarum, Luxemburg. — *Trich. fissurarum* proxime affinis.

4. **Trichosphæria tetraspora** Feltgen, Vorstud. zur Pilz. Fl. Luxemb. Nacht. III, 1903, p. 281. — Peritheciis dense gregariis v. hinc inde confertis, superficialibus, hemisphæricis, nitide papillatis, hyphis mycelicis, 30-100 × 6-8, atro-brunneis breviter expansis conidiophoris basi cinctis; conidiis verruculosis, hyalinis, 20-27 × 20; peritheciis 200-250 μ. lat.; ascis cylindraceo-clavatis, stipitatis 68-70 × 5,5-7, tetrasporis; sporidiis oblique monostichis, obtuse ellipsoideis hyalinis continuis, biguttulatis, 8 × 2,8-5; paraphysibus filiformibus ascos paullo superantibus, hyalinis. 1986

Hab. in ligno Quercus vel Fagi putrescenti, Luxemburg.

5. **Trichosphæria culmorum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. I, 1901, p. 204. — Peritheciis gregariis vel dense confertis, omnino superficialibus 0,2-0,3 mm. diam., nigris, setulis atro-brunneis, rectis vel curvulis, obtusis, 52-180 × 2,5-5, vestitis; ostiolo papillato; asci cylindricis, breve stipitatis, 60-65 × 4,5-5,5; sporidiis monostichis, elliptico-ovoideis, vulgo inæquilateris, continuis, 4-guttulatis, 8,5-10 × 3,5-5,5 ex hyalino dilutissime flavidis. 1987

Hab. in culmis cerealium putrescentibus, Luxemburg. — Affinis *Trich. exosporioidi,* sed asci cylindrici et multo longiores.

COUTINIA d'Almeida et da Camara in Rivista agron. de Lisboa, 1903, n. 12, p. 293, tab. XIV (Etym. a cl. botanico Pereira Coutinho Floræ lusit. cultore). — Perithecia carbonacea, plerumque conglomerata, haud stromatica, ostiolo pertuso, subtecta. Asci stipitati,

paraphysati, octospori. Sporidia continua, plus minus ellipsoidea, hyalina. — Vix v. non differt a gen. *Botryosphæria!*

1. **Coutinia Agaves** d'Alm. et da Cam. l. c. p. 393, t. XIV, f. 4-6. 1988
— Peritheciis amphigenis, gregariis v. rarissime solitariis, primo tectis, subinde epidermide rupta, ostiolo denudato, subglobosis, aterrimis, 320 μ. diam.; ascis 8-sporis, clavatis, longe stipitatis, paraphysatis, 160-180 × 40-50; sporidiis distichis, subellipsoideis, unilateraliter gibbosulis, plasmato granuloso-farctis, hyalinis, 40-48 × 15-18.

Hab. ad folia Agaves americanæ. Bemfica, Lisboa, martio 1903, socio *Coniothyrio concentrico* var. *Agaves* Sacc. — Verisimillime *Botryosphæriæ Bérengerianæ* peraffinis.

BOTRYOSPHÆRIA Ces. et De Not. — Syll. I p. 456, IX p. 605, XI p. 295, XIV p. 524, XVI p. 467.

1. **Botryosphæria majuscula** Sacc. in Atti Congr. bot. di Palermo 1902. 1989
p. 49. — Stromatibus seu acervulis laxe gregariis innato-erumpentibus, peridermio cinctis, nigris, 1,5–2 mm. diam. convexo-discoideis; peritheciis globoso-depressis, majusculis, in quoque acervulo 8-12 congregatis, 300-500 μ. diam., extus tenuissime rugulosis opaco-nigris, papillatis, intus albis; contexu grosse celluloso, fuligineo; ascis elongato-clavatis, breve stipitatis, apice rotundatis, 150-170 × 16-26, sæpe gibbosis, bacillari-paraphysatis, 4-8-sporis; sporidiis oblongo-ellipsoideis, basi subinde acutioribus, 30-33 × 14-15, nubilosis, hyalinis.

Hab. in ramis corticatis quercinis, Rigny s. A Galliæ (Flageolet). — Peritheciis eumorphis, majusculis, sporidiis quoque majoribus ab affini *B Bérengeriana* dignoscitur.

2. **Botryosphæria Hoffmanni** v. Höhn. Ann. Mycol. 1904, pag. 275. 1990
— Stromatibus erumpentibus, pulvinatis, nigris, peridermio fisso cinctis, levibus vel rugulosis, subrotundo-angulosis, 0,5–1,5 mm. diam.; peritheciis immersis, plerumque 4-5, globulosis v. compressis, subinde confluentibus, 300–350 μ. diam.; ascis crasse clavatis, 110 × 28-32, typice octosporis, copiose paraphysatis; sporidiis elliptico-ovoideis, subinde oblongis v. subfusoideis, utrinque obtusulis, 28-42 × 12-16, hyalinis, strato mucoso cinctis.

Hab. in ramis Fagi silvaticæ, in Wiener Wald pr. Vindobonam Austriæ, sociis *Asterosporio Hoffmanni* et *Fusicocco macrosporo*, quæ, teste cl. Höhnel, macro- et micropycnidia *Botryosphæriæ* sistunt. — Quod *Fusicoccum* huc pertineat, non excludo;

sed quoad dissimillimum *Asterosporium*, nisi experimenta hoc confirment, omnino improbabile mihi videtur.

3. **Botryosphæria Pruni** Mc. Alp. Fungus diseases, Melbourne 1902, 1991
pag. 119, fig. 217–220. — Stromatibus dense gregariis, e ligno erumpentibus, nigris 1 mm. diam.; peritheciis 4–5-congestis, globosis vel depresso-globosis, papillatis vel rostratis, subcoriaceis 300-400 μ. diam.; ascis clavatis v. oblongo-cylindraceis, paraphysatis, octosporis. 40-80 × 13-16; paraphysibus hyalinis, septatis, filiformibus subæquilongis; sporidiis monostichis v. distichis, hyalinis, oblongo-ellipticis vel lanceolato-ellipticis, granulosis, 20–24 × 8–9.

Hab. in ramulis emortuis Pruni Armeniacæ, Armadale pr. Melbourne Australiæ.

4. **Botryosphæria muriculata** Ell. et Ev. in Journ. of Mycol. 1902, 1992
p. 68. — Stromatibus corticalibus subcutaneis, epidermide muriculato-fissa cinctis, nigricantibus, hysteriiformibus; peritheciis 2-6 in quoque stromate 250-300 μ. diam., ostiolis papillatis præditis, erumpentibus; ascis clavato-cylindraceis, breve stipitatis, paraphysatis, p. sp. 75-80 × 18-20; sporidiis distichis, oblongo-ellipticis, subinæquilateralibus, utrinque rotundatis v. obtusulis, 20-25 × 10-12.

Hab. in caulibus Smilacis, Alabama Amer. bor.

5. **Botryosphæria hysterioides** Ell. et Ev. in Journ. of Mycol. 1902, 1993
vol. 8, pag. 18. — Maculis oblongo-ellipticis, dein confluentibus 10 cm. et ultra, initio rubro-brunneis, dein griseo-albidis, rufo marginatis; peritheciis globosis 200-300 μ. diam., 2-4 aggregatis, in stromate hysterioideo 0,5-0,8 mm. longo insidentibus, velatis, dein ostiolo papilliformi, obsoleto erumpentibus; ascis late clavato-oblongis 75-100 × 25-30, breve stipitatis, paraphysibus obscurioribus obvallatis; sporidiis oblongis, utrinque acutis, hyalinis, fere luteolis 25-30 × 8-12, vacuolatis.

Hab. in foliis Hesperaloes Dayii, Peyotes Mexico (W. Trelease).

RINIA Penz. et Sacc. Malpighia 1902 (Etym. a cl. medico et botanico veneto Benedicto Rinio, qui annis 1415–1430 circ. codicem *De simplicibus* conscripsit, plantarum iconibus, suo tempore eximiis, ornatum, in bibliotheca Marciana Venetiis nunc servatum). — Perithecia biophila, phyllogena, membranacea, nigricantia, fasciis mycelicis, innato-prominulis, repentibus, anastomotico-reticulatis semiimmersa, globulosa, ostiolo albido, appendicibus verruciformibus

majusculis, nigris, carbonaceis stellatim cincto. Asci oblongo-fusoidei, paraphysati, octospori. Sporidia ellipsoidea, continua, hyalina. Genus ostiolo maximo stellato prædistinctum, qua nota faciem sumit *Delpinoellæ*, etsi fabricâ omnino diversum et nulli nec affine nec parallelum.

1. **Rinia spectabilis** Penz. et Sacc. l. c. et Icon. fung. Jav. t. III, 1994
f. 3. — Amphigena, dense gregaria; peritheciis intus pallidis, globulosis, matrici semiimmersis, 240-260 μ. diam., ostiolo minuto cristis seu verrucis prominentibus, carbonaceo-fragilibus, nigris, subquinis, rugosis, circulum radiatum 450-500 μ. diam. formantibus coronato; ascis obtuse fusoideis, brevissime stipitatis 70-75 × 18-20, copiose filiformi-paraphysatis, octosporis; sporidiis irregulariter distichis, ellipsoideis 10 × 6, hyalinis, levibus.

Hab. in foliis omnino viventibus subcoriaceis plantæ indeterminatæ, Tjibodas, Java. — Fasciæ mycelicæ folio innato-prominulæ, fulvo-fuscæ, orassæ, 0,3 mm. cr., natura granulosa dubia nec filamentosæ.

CERATOSTOMELLA Sacc. — Syll. I p. 408, IX p. 573, XI p. 289, XIV p. 515

1. **Ceratostomella pilifera** (Fr). Wint. Kryptogamenfl. II, pag. 252, *Ceratostoma piliferum* (Fr.) Fuck. — Syll. II, p. 219. — Conferenda pulcherrima illustratio H. v. Schrenk in Bull. U. S. Dep. of Agricult. 1903, p. 17, tab. VII. Nascitur quoque in truncis Pini ponderosæ, in America bor., cujus lignum inde cyanescit, unde nomen vulgare « Blue ». Asci piriformes subsessiles; sporidia oblonga, curvula, hyalina, conglobata, 5,5 × 2,5.

CRYPTOSPORELLA Sacc. — Syll. I p. 466, IX p. 609, XIV p. 525, XVI p. 468.

1. **Cryptosporella eupatoriincola** Rehm, Hedw. XLIV, p. 6. — Stro- 1995
matibus ramulum hypertrophicum ambientibus, arcte congregatis, hemisphæricis, peridermio demum extus nigritulo tectis, cortici innatis, linea nigra intus non circumscriptis; peritheciis in stromate c. 5 innatis, irregulariter conglomeratis, globulosis, collis in discum suborbicularem convergentibus, papillulis nigris, hemisphæricis, demum scabriusculis, poro vix perspicue pertusis prominentibus; ascis fusiformibus octosporis 50 × 15; sporidiis oblongis, utrinque rotundatis, subhyalinis, 1-cellularibus, strato mucoso obductis, 12-15 × 5-6; paraphysibus nullis.

Hab. ad ramulos Eupatorii bupleurifolii, Tubarao Brasiliæ.

2. **Cryptosporella Macrozamiæ** P. Henn. in Hedw. 1902, p. (64). — Stromatibus petioli- v. foliicolis, primo epidermide fusca v. cinerea tectis, oblongis, punctoideis vel striiformibus, gregariis, sæpe confluentibus, dein epidermide longitudinaliter rimosis; peritheciis paucis vel pluribus, carbonaceis, atris, hemisphæricis v. subglobosis, ostiolatis; ascis clavatis, apice rotundato-obtusis, 100-200 × 14-22, octosporis; paraphysibus copiosis filiformibus, septatis, hyalinis, apice paullo incrassatis, obtusis, 3-4 μ. crassis; sporidiis oblongo-ellipsoideis vel ovoideis, interdum subglobosis, intus granulatis, hyalinis, continuis, 15-22 × 10-15. 1996

Hab. in petiolis foliisque Macrozamiæ Fraseri, Darling Range Australiæ occid. — Ob paraphyses copiosissimas, perfecte evolutas, species a typo desciscit et hinc ab auctore in subgen. nov. *Cryptosporina* P. Henn. erigitur.

Sect. 3. Phæosporæ.

MÜLLERELLA Hepp. — Syll. IX p. 495.

1. **Müllerella haplotella** (Nyl.) Arn. ap. Zopf, Hedw. 1896, p. 314, *Endococcus haplotellus* Nyl. Fl. 1867, pag. 180. — Peritheciis nigris, minutis, 100 μ. diam. prominulis; ascis polysporis, jodo rubentibus; sporidiis 1-cellularibus, ellipsoideis, atris, 4-7 × 2,5-3; paraphysibus nullis. 1997

Hab. in thallo Arthoniæ astroideæ in Saellandia occid. (Branth).

2. **Müllerella thallophila** Arn. Fl. 1888, p. 14, Zopf. in N. Act. Leop. Carol. t. LXX, pag. 139 c. ic. — Peritheciis minutissimis, atris, immersis, apice applanato pertuso prominentibus; ascis clavatis 24-44-sporis; paraphysibus ascos longe superantibus; sporidiis 1-cellularibus, 7-12,5 × 4,2-5,3, brunneis. 1998

Hab. in thallo Aspiciliæ cæsio-cinereæ in Paneveggio Trentino.

3. **Müllerella haplospora** (Th. Fr. et Almq.) Arnold, Flora 1874, p. 155, *Endococcus* Th. Fr. et Almq. Bot. Not. 1867, p. 109. — Peritheciis globosis, immersis, seminudis, atris, diam. 250-300 μ.; paraphysibus sat validis, gelatinoso-conglutinatis; ascis inflato-clavatis, polysporis; sporidiis numerosis, ellipsoideis, simplicibus, 1999

nigrificantibus, 8-10 × 4-6, gelatina hymen. jodo primo cærulescente, dein mox vinose rubente.

Hab. in thallo Aspiciliæ cinereæ prope Funnesdalen (Herjedalen) Sueciæ (Almquist).

4 **Müllerella hospitans** Stitzenberg, Fries Th. in Flora 1865, p. 488. 200
Zopf. Hedw. 1896, p. 329. — Ascis polysporis; sporidiis 1-cellularibus, brunneis . . . .

Hab. in apotheciis Lecaniæ fuscellæ, Lidköping Sueciæ (F. Grawe).

5 **Müllerella opegraphicola** Zopf, Hedw. 1896, p. 342 (sec. Linds. 200
Observ. p. 549 et 555, tab. XXIV, fig. 26). — Peritheciis nigris; ascis piriformibus, polysporis; sporidiis 1-cellularibus pallide brunneis; paraphysibus nullis.

Hab. in thallo Opegraphæ atræ in Helvetia.

6 **Müllerella atricola** (Linds.) Sacc. et D. Sacc. *Microthelia atricola* 200
Linds. Obs. p. 542, t. XXIV, fig. 7. — Peritheciis verrucarioideis, minutis, distinctis, nigris, conico-depressis, subinde irregularibus, subinnatis, poro latiusculo apertis; ascis 50 × 15-16; sporidiis in quoque asco numerosissimis, sphæroideis, atro-brunneis, 2-2,5 μ. diam.

Hab. in thallo Lecanoræ atræ in Britannia.

ANTHOSTOMELLA Sacc. — Syll. I p. 278, IX p. 505, XI p. 281, XIV p. 501, XVI p. 439.

1. **Anthostomella melanoderma** Rehm in Oest. Bot. Zeitschr. 1904, 200
p. 82. — Maculis caulicolis plus minusve ambientibus, longitudinaliter 1-3 cm. strati externi superficiem fusco-nigrificantibus; peritheciis sparsis, interdum seriatis, primitus immersis, dein emergentibus sessilibusque, globulosis, brevissime rostratis, nigris 120-150 μ. diam.; ascis cylindraceis, apice rotundatis, 40-45 × 7-8, octosporis, jodi ope poro interne cæruleo tincto; sporidiis ellipsoideis, interdum curvulatis, 1-cellularibus, guttulis oleosis, interdum gutta unica majore, repletis, fuscidulis 9-10 × 4-4,5, monostichis; paraphysibus ramosis, septatis, 3 μ. cr.

Hab. in caulibus putrescentibus Umbelliferæ sp. (?), in valle infra Monasterium Andechs Bavariæ sup.

2. **Anthostomella Coffeæ** Delacr. Bull. Soc. Mycol. 1904, pag. 145, 200
tab. 9, fig. *B*, 1-3. — Peritheciis nigris, sparsis, primo immersis, dein superficialibus, ostiolo non prominente; contextu tenuiter parenchymatico; ascis late clavatis, brevissime pedicellatis, 50-57 ×

15–17; paraphysibus tenuibus, granulosis, asco paullo longioribus sporidiis subdistichis, continuis, dilute viridi-olivaceis, ovoideis vel subpiriformibus vel uno latere applanatis, crasse bi-guttulatis, 12, 5-13,5 × 6-7, strato gelatinoso circumdatis.

Hab. in ramis floriferis Coffeæ arabicæ, verisimiliter parasitans, Mexico (Errera).

3. **Anthostomella thyridioides** Ell. et Ev. in Journ. of Mycol. 1903, 205
p. 167. — Peritheciis gregariis vel 1-2 congestis, globosis, immersis, sub cuticula nigrificata tectis, ostiolis papillatis donatis; ascis clavato-cylindraceis, 70–75 × 10-12, paraphysatis; sporidiis oblongo-cylindraceis, continuis, brunneis, 15–22 × 4–6.

Hab. in ramis decorticatis emortuis Populi deltoidis, Rooks Co., Kansas Amer bor. — Habitus *Thyridii*.

4. **Anthostomella pedemontana** Ferr. et Sacc. in Atti Congr. bot. di 206
Palermo 1902, p. 50. — Peritheciis laxe gregariis, folio immersis epidermideque diu tectis, subglobosis, membranaceis, atris, 300–350 μ. diam., subinde longitudinaliter paullulum compressis, ostiolo brevissime papillato; ascis e fundo perithecii oriundis, cylindraceo-clavatis breviter crasseque stipitatis, apice rotundatis, 100–110 × 9, 5-10, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis, breve fusoideis utrinque obtusulis, leviter inæquilateris, 14-18 × 6,5–7, continuis, intense fuligineis.

Hab. in foliis siccis, dejectis Pini silvestris pr. Crescentino Italiæ bor. — Specie prædistincta.

Anthostomaria Sacc. Species lichenicolæ.

5. **Anthostomella apogyra** (Nyl.) Sacc. et D. Sacc. *Melanotheca apo-* 207
gyra Nyl. Flora 1887, pag. 132. — Peritheciis nigris, innatis, confluentibus, 100-150 μ diam.; sporidiis octonis, oblongo-ovoideis, 16–18 × 5-7, fuscis; paraphysibus mediocribus.

Hab. in Gyrophoræ polyphyllæ apotheciis, quæ deformat, in Caucaso (Lojka).

ROSELLINIA De Not. — Syll. I p. 252, IX p. 495, XI p. 280, XIV p. 494, XVI p. 435.

1. **Rosellinia necatrix** (R. Hart.) Berl. Rapp. fra Dematophi. e Ro- 208
sellinia in Riv. Pat. veg. I, 1892, pag. 5 et p. 33. cum tabulis, Prill. Malad. pl. agric. II, p. 133 cum ic. et in Bull. Soc mycol Fr. 1904, p. 34, pl. III-IV, *Dematophora necatrix* R. Hart. Un-

tors. aus forstbot. Inst. III, 1883, p. 95, tab. VI-VII, Viala, Monogr. du pourridié, Paris 1891. — Peritheciis hinc inde gregariis subinde confertis, globosis, carbonaceis, brunneo-nigris, apice obtusis, basi brevissime stipitatis, ostiolo parum manifesto donatis, 2 mm. diam., fasciculis hypharum conidiophorarum divergentibus, obvallatis; hyphis (*Graphium* sistentibus) fasciculatis septatis, brunneis, sursum ramoso-divaricatis conidiaque ellipsoidea ovoidea 2-3 μ. diam gerentibus; ascis filiformi-cylindraceis, longiuscule pedicellatis, apice rotundatis et obturaculo jodo cærulescente præditis, 280-300 × 30, octosporis, paraphysibus filiformibus copiosissimis obvallatis; sporidiis monostichis, fusoideis inæquilateris, utrinque acutis 40 × 7, brunneis.

Hab. in partibus subterraneis Vitis, Quercus, Aceris, Fici, Mori, Persicæ nec non Fabæ, Pæoniæ Hyacinthi etc. in Germania, Gallia, Italia. — Perithecia ex mycelio floccoso albo demum fuscescente intra et extra corticem serpente oriuntur. Subinde pycnidia adsunt (*Diplodia*) subglobosa 250-500 μ. diam.; sporulis 25 × 7,5, typice bilocularibus, brunneis. Morbus gravis, quo plantæ vexantur, vulgo ital. *marciume* audit.

2. Rosellinia paraguayensis Starb. in Arkiv för Botan. 1804, Band 2, 2009
pag. 15, fig. 32-35. — Subiculo pannoso-crustaceo late ambiente, floccoso, nigro, pilis fasciculatis 3-4 μ. cr., usque 1 mm. alto; peritheciis gregariis interdum subconfertis, subiculo immersis, dein erumpentibus, late conicis, tomento subiculi vestitis, apicem versus levibus opace nigris, papillatis, 1-2 mm. diam.; ascis anguste cylindraceis, sursum incrassatis, longe pedicellatis, p. sporif. 200-225 × 8-9; sporidiis octonis dense imbricatis v. irregulariter monostichis, anguste fusoideis, subcurvulis, vulgo utrinque obtusiusculo tenuatis, muco angustissimo obvolutis, continuis, 30-38 × 7-7,5, ex hyalino demum fuscis; paraphysibus filiformibus, guttulatis, ramosis, ascos superantibus.

Hab. ad truncos dejectos putres, San Tomas Paraguay. - *R. Desmazierii* affinis.

3. Rosellinia Euterpes Rhem, Hedw. XLIV (1905). — Peritheciis in 2010
mycelio albo, late effuso gregariis, subglobosis lata basi sessilibus 1-1,5 mm. lat. et alt., glabris, atris, subnitentibus, apice minutissime papillulatis, carbonaceis, fragilibus. Hymenium deest.

Hab. ad Eutorpen, Blumenau Brasiliæ (E. Ule). — Videtur affinis, licet diversa, *R. albo-fultæ*, *R. pictæ* et *R. griseo-cinctæ*, tamen ignota fructificatione, omnino dubia.

4. **Rosellinia madeirensis** P. Henn. Fungi Amaz. II, p. 242. — Pe[illegible] rithecis gregariis, superficialibus, subhemisphæricis v. subglobosis, atro-carbonaceis, obtuse ostiolatis, rugulosis, 0,6–0,8 mm. diam., basi hyphis fuscis repentibus, septatis ca. 3-3 ½ μ. circumdatis; ascis oblonge cylindraceis, 8-sporis, plerumque evanescentibus; sporidiis oblique monostichis vel subdistichis, oblongo subnaviculariformibus, utrinque obtusis, 16-25 × 8-10, atro-castaneis.

Hab. in ramis emortuis, Rio Madeira, Marmellos Brasiliæ — A *Rosellinia aquila* præcipue sporidiis crassioribus differt.

5. **Rosellinia echinata** Massee in Kew Bull. 1901, p. 155. — Peri[illegible] thecis majusculis, 1-1,5 mm. diam., densissime aggregatis, globoso-depressis, superne convexo-applanatis, centro papillatis atris, fragilibus, echinatis; ascis cylindraceis, apice truncatis, incrassatis, octosporis; sporidiis oblique monostichis, fusiformi-naviculariformibus, utrinque acutissimis, opace brunneis, 1-2-guttulatis, glabris 90-100 × 12; paraphysibus, filiformibus, subinde ramosis 2,5 μ. crassis.

Hab. in radicibus Fici dubiæ in horto botanico Singapore, Malacca. — Valde damnosa.

6. **Rosellinia cæspitosa** Starb. in Arkiv för Botan. 1904, Band. 2, p. 15, fig. 29–31. — Peritheciis densissime aggregatis, confluentibus v. superne liberis, stromate basilari conjunctis, cylindraceis, apice rotundato-truncatis, fusco-purpuraceis, deinde nigris nitidis, non ostiolatis sed vertice operculatim dehiscentibus, 2-5 mm. alt., 1-2 mm. lat., contextu dense carbonaceo; ascis non visis; sporidiis oblongato-ellipsoideis v. interdum subsphæroideis, naviculariformibus olivaceo-fuscis, interdum apice guttulatis, 7-14 × 6-9 v. 6-7 μ. diam.

Hab. ad ligna pr. Coxipó Matto Grosso Brasiliæ. — Peritheciis magnis astomis vix hujus generis. Cfr. *Henningsinia*, a qua *Hypox.* (*Camillea*) *turbinatum* et forte *Pyrenomyxa* Mang. non differre videntur.

7. **Rosellinia Castaneæ** Oud. in Ned. Kruidk. Arch. 3 Ser., II, 4, p. 872, 1903. — Peritheciis amphigenis, sparsis, 250-300 μ. diam., globoso-depressis, in parenchymate immersis, superne prominentibus, nigro-carbonaceis, glabris; ascis cylindraceis, basi attenuatis, octosporis; sporidiis monostichis, oblongis, subinæquilateralibus 11 × 3,5, brunneolis, guttula mediana, distincta præditis, superne rotundatis, inferne truncatis; paraphysibus linearibus, continuis, hyalinis, asco brevioribus.

Hab. in foliis Castaneæ vescæ, Bussum Hollandiæ (C. J. Koning).

8. **Rosellinia Calami** P. Henn. in Hedw. 1903, p. (79). — Peritheciis superficialibus, plerumque aggregatis confluentibusque ovoideis vel subglobosis, atro-carbonaceis, primo ferrugineo-pruinosis, dein levibus, atris, subnitentibus, subconico-ostiolatis, 0.3 mm. diam.; ascis cylindraceo-clavatis, apice obtusis, octosporis, 80-100 µ. long., p. spor. 70-80 × 4-4.5; paraphysibus filiformibus, hyalinis, ca. 1-1,5 µ.; sporidiis monostichis oblonge ellipsoideis, inæquilateralibus, utrinque obtusis, 2-guttulatis, brunneis v. atris, 7-9 × 3,5. 2015

Hab in caudicibus Calami spec., N. Queensland Australiæ (Peitzel).

9. **Rosellinia Bigeloviæ** Ell. et Ev. — Syll. XIV, pag. 494. — f. **Amorphæ** Ell. et Ev. in Journ. of Mycol. 1902, v. 8, p. 16. — Peritheciis dense stipatis v. subconfluentibus, ovato-globosis 250–350 µ. diam.; ostiolo papilliformi v. conico; sporidiis 8-10 × 5–5,5, distincte compressis 3-3,5 µ. cr. — f. **Negundinis** Ell. et Ev. l. c.: sporidiis 8-10 × 4-5, 3 µ. cr. 2016

Hab. in caulibus emortuis Amorphæ fruticosæ et Negundinis aceroidis. Rooks Co,. Kansas Amer. bor. (Bartholomew).

10. **Rosellinia biguttulata** Starb. in Arkiv. för Botan. 1904, Band. 2, p. 14. — Peritheciis dense aggregatis, stromate basilari fere conjunctis v. interdum omnino confluentibus, crustam longe lateque effusam, efformantibus, atratis, rugosis, sphæroideis, vertice glabro fere truncato, distincte papillulato, circ. 500 µ. diam.; ascis jam resorptis; sporidiis ellipsoideis, biguttulatis, 6,5-9 × 3,5-5. 2017

Hab. ad truncum putrem, colon. Sjuhy Rio grande do Sul Brasiliæ.

11. **Rosellinia coffeicola** Pat. Champ. de la Guadeloupe, ser. III, in Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Peritheciis carbonaceis, nigris, globulosis, plus minusve compressis, congestis, 700-850 µ. diam., superficialibus, tuberculatis; ostiolo papilliformi, lucenti, centrali, depresso; sporidiis brunneis, ovoideis sæpe inæquilateralibus, 12 × 5. 2018

Hab. in ligno denudato putri Coffeæ arabicæ, Guadalupa.

12. **Rosellinia millegrana** Schw. Sacc. — Syll. I, p. 265. — var. **minuta** Feltg. Vorst. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 287. — A typo, quocum congruit habitu, differre videtur sporidiis multo minoribus, diu hyalinis, demum brunneis, ascis quoque minoribus. 2019

Hab. in ramis decorticatis Alni vel Salicis? Luxemburg.

13. **Rosellinia subcompressa** Ell. et Ev. — Syll. XIV. p. 496. — var. **denigrata** Feltg. Vorstud. z. Pilz. Fl Luxemb. Nachtr III,

1903, p. 287. — A typo differt matrice distincte denigrata; perithecciis erumpentibus, 300-600 μ. diam.; ascis 60-80 × 8-9; sporidiis atro-brunneis 8-9 × 5-6, e latere 3-4 μ. cr.

Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.

14. **Rosellinia Mölleriana** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 13. — Perithecciis carbonaceis, superficialibus, caespitose confluentibus, subglobosis, atro-brunneis, ferrugineo-pruinosis vel subfurfuraceis, vertice depressis umbilicatis, conico-papillatis, dein perforatis 0,6-0,8 mm. diam.; ascis cylindraceis, obtusis, octosporis, 50-60 × 4-5; paraphysibus copiosis, hyphoideis, hyalinis ca. 1 μ.; sporidiis monostichis, ellipsoideo-allantoideis, utrinque obtusis, fusco-castaneis, 6-7 × 3,5.

Hab. in ligno putri, St. Catharina Brasiliæ austr.

15. **Rosellinia hypoxyloides** (P. Henn.) Sacc. et D. Sacc. *Amphisphærella hypoxyloides* P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 13. — Perithecciis superficialibus, sparsis, carbonaceis, conico-hemisphæricis, atris, pulverulentis ca. 1-1,5 mm. diam., ostiolo conico-obtuso; ascis clavatis, apice rotundato-obtusis, p. spor 65-70 × 10-13, stipite attenuato 30-50 μ. longo, octosporis; paraphysibus filiformibus 2-3 μ. cr., septatis; sporidiis ellipsoideis vel late fusoideis, oblique monostichis, utrinque obtusis v. subacutiusculis, 1-guttulatis, atris, 14-18 × 9-11.

Hab. in lignis, St. Catharina Brasiliæ austr.

16. **Rosellinia Hippophaës** Rehm, Œster. Bot. Zeitschr. 1906, p. 9. — Perithecciis sparsis primitus immersis, dein per epidermidem lacerata emergentibus et sessilibus, globulosis, 300 μ. diam. subcarbonaceis, atris, papillula conoidea brevissima glabra; ascis evanidis; sporidiis oblongis, utrinque rotundatis subfuscis, 1-cellularibus 12-14 × 7.

Hab. ad folium putridum Hippophaës rhamnoidis juxta torrentem in valle Kaiserthal Tiroliæ. — Affinis *Ros. limonisporæ* et *Ros. macræ*. — E sect. *Amphisphærellæ*.

17. **Rosellinia sordaria** (Fr.) Rehm. — Syll. I, p. 270, IX, p. 501. var. **microtricha** Feltgen, Vorstud. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 288. — A typo differt ascis majoribus, 70-80 × 7-8; sporidiis 1-3-guttatis, tandem brunneis 7-10 × 3-5,5 setisque totum perithecium vestientibus, acutis, brevibus.

Hab. in ramis decorticatis Fagi, Luxemburg.

18. **Rosellinia Queenslandiæ** (P. Henn.) Sacc. et D. Sacc. *Coniochæta*

Queenslandiæ P. Henn. Fungi Austral. in Hedw. 1903. p. (80). Peritheciis superficialibus, sparsis v. aggregatis, carbonaceis, atris, ovoideis, vertice papillatis v. concavis, basi mycelio fusco ramoso circumdatis, ca 300 μ. diam. dense setigeris, setis atris 50-200 × 10-15; ascis cylindraceis, p spor. ca. 50 × 4; sporidiis monostichis, oblongo-ellipsoideis, utrinque obtusis, fusco-atris 6-8 × 3,5-4.

Hab. in ligno sicco pr. fl. Barron. N. Queensland Australiæ.

19. **Rosellinia occultata** Feltg. Vorstud. Pilz Luxemb. Nachtr. II, 1901. p. 208. — Peritheciis dense et late caespitulosis, ligno insertis et peridermio fisso relaxato cinctis, ovoideo-globosis, minute subinde longiuscule papillatis, opace nigris, pulveraceo asperulis, setulis sparsis, nigris 13-26 × 2-3,5 vestitis; ascis cylindricis, deorsum stipitato-tenuatis, apice obtusis, incrassatulis, octosporis 78-91 × 5,5-6; sporidiis recte monostichis, cylindraceo-ellipsoideis, obtusis, brunneis, vulgo biguttatis, 7-9 × 4,5-5; paraphysibus filiformibus.

Hab. in ramis siccis, corticatis Quercus, Luxemburg. — Accedit ad *Ros. belgicam*.

20. **Rosellinia brassicicola** Feltgen, Vorstud. z. Pilz. Fl. Luxemb. Nachtr. III, 1903, p. 288. — Peritheciis gregariis, rarius sparsis, liberis vel basi adnatis, globosis, papillatis 0,5 mm. diam., carbonaceo-coriaceis, fragilibus; ostiolo conoideo vel breve cylindraceo, nitido praeditis; setis nigris, rigidis, acutis, rectis vel flexuosis 50-80 × 5-6, dense vestitis; ascis cylindricis breve stipitatis, 125-145 × 11-15, octosporis, paraphysatis; sporidiis monostichis, ellipsoideis, continuis, atro-brunneis, 13-16 × 9,5-13,5.

Hab. in caulibus putridis Brassicæ Luxemburg. — Mycelium atrum circa perithecia serpit. *Rosellinia horridæ* affinis.

CHÆTOMIUM Kunze. — Syll. I p. 220, IX p. 484, XI p 279, XIV p. 490, XVI p. 428.

1. **Chætomium arachnoides** Mass. et Salm. Coproph. fungi II, p. 71, fig. 97-103. — Peritheciis parvulis, globosis, subumbonatis, sparsis v. gregariis, nigris, contextu parenchymatico e cellulis polygonis circ. 8 μ. latis composito, in parte superiore pilis fuscis longissimis flexuosis valde divergentibus, simplicibus, gracilibus 4-5 μ. cr., levibus, septatis apice plus minus uncinatis, undique vestitis; ascis clavatis cr. 36 × 12 citissime diffluentibus; sporidiis e fronte late ellipsoideis vel subglobosis, utrinque acutatis, leniter compressis 7-9 × 5-6, fulvidis.

Hab. in fimo ovino et in charta putrescente, Kew Britanniæ.

2. **Chætomium simile** Mass. et Salm. Coproph. fungi II, p. 71. fig. 8-9. 2028
— Peritheciis gregariis 500-750 μ. alt., subglobosis, undique olivaceo-pilosis, pilis superioribus dense confertis, intricatis, crispis, fuscis, pluries irregulariter spiraliter contortis, apice uncinatis, plerumque non septatis, levibus; ascis cylindraceis, breviter stipitatis 80 × 9-10, octosporis; sporidiis monostichis, late ellipticis v. subglobosis, polo uno minute apiculatis, altero plus minusve rotundatis 8-10 × 7.5 leniter compressis, olivaceo-fuscis.

Hab. in fimo canino vetusto, Kew Britanniæ.

SORDARIA Ces. et De Not. — Syll. I p. 230, IX p. 487, XIV p. 492, XVI p. 430.

1. **Sordaria longicaudata** (Griff.) Sacc. et D. Sacc. *Pleurage longicaudata* Griff. Mem. Torr. Bot. Cl. 1901, p. 81. tab. 8, fig. 9-11 — Peritheciis sparsis, immersis dein maturitate expositis, 600-900 × 450-600, membranaceis, maturitate nigris, globoso-piriformibus, brevi ostiolatis, ascis clavatis, rectis vel curvatis, breve stipitatis 280-300 × 32-42; paraphysibus late tubulari-ventricosis, irregularibus, ascis æquilongis; sporidiis ellipsoideis, utrinque rotundatis, sæpe superne acutatis 45-53 × 23-35, maturitate intense brunneis, longicaudatis. 2029

Hab. in fimo vaccino, Rooks Co. Kansas (Bartholomew, Auburn, Alab. (Earle), in fimo equino Austin, Texas (Long)

2. **Sordaria arizonensis** (Griff.) Sacc. et D. Sacc. *Pleurage arizonensis* Griff. Amer. Sordar., Mem. Torr. Bot. Cl. 1901, p. 57, tab. VI, fig. 4-6 *). — Peritheciis sparsis v. congestis, initio immersis dein subemergentibus 400-600 μ. diam. membranaceis vel subcoriaceis, nigris v. opacis, globoso-piriformibus, superne albido-tomentosis, ostiolo brevi, papillato nigro, curvulo, setis longis brunneis donatis; ascis 4-sporis, cylindraceis, subcontractis, apice rotundatis, subpedicellatis, 38-45 × 240-325; paraphysibus variabilibus, filiformibus, septatis, asco multo longioribus; sporidiis monostichis, ellipsoideis utrinque subrotundatis 45-52 × 21-25 initio hyalinis dein intense brunneis, longissime utrinque appendiculatis. 2030

Hab. in fimo pecorino et vaccino, Tucson, Ariz., Amer. bor.

3. **Sordaria Ellisiana** (Griff.) Sacc. et D. Sacc., *Pleurage Ellisiana* Griff. Amer. Sord., Mem. Torr. Bot. Cl. 1901, pag. 72. tab. V, fig. 1-3. — Peritheciis sparsis semiimmersis vel superficialibus, 2031

*) Conferenda optima Monogr. de Sordariaceis amer. cl. Griffithsii.

mycelio dense obvolutis 500 × 300, submembranaceis, piriformibus, septatis vestitis; ascis octosporis, clavatis, longe stipitatis 160–185 × 26–32; paraphysibus filiformibus, septatis, inferne subconstrictis; sporidiis distichis ovatis vel late ellipsoideis maturitate, intense brunneis 21–27 × 11–16, longiuscule appendiculatis.

Hab. in fimo vaccino, Englewood et Newfield N. J. Amer. bor. (Ellis).

4. **Sordaria globosa** Mass. et Salm. Coproph. fungi I. p. 334, fig. 21. 2032
— Peritheciis subgregariis, primo subimmersis dein plus minus superficialibus, globosis circ. 750 μ. diam., glabris, olivaceis, ostiolo papilliformi atro, subcarnaceo; contextu parenchymatico e cellulis tenuibus composito; ascis numerosis cylindraceis, deorsum in stipitem longum attenuatis, octosporis, 300-350 × 35–50; sporidiis ellipticis 35–40 × 20-22, basi tantum appendicula hyalina cylindracea sæpe attenuata persistente recta vel curvula 25–30 μ. longa auctis.

Hab. in fimo Macropodis gigantei et Cervi Elaphi, Kew Britanniæ.

5. **Sordaria tænioides** (Griff.) Sacc. et D. Sacc. *Pleurage tænioides* 2033
Griff. Mem. Torr. Bot. Cl. 1901, pag. 58. — Peritheciis sparsis, subimmersis erumpentibusque 500–750 μ. olivaceo-brunneis, coriacellis, globoso-piriformibus, ostiolo longe cylindrico donatis, superne setulis septatis brunneis uniformiter vestitis; ascis 4-sporis, cylindraceis superne rotundatis, longe pedicellatis 290-360 × 37–45; paraphysibus filiformibus superne subincrassatis, septatis, asco æquilongis; sporidiis monostichis, ellipsoideo-ovalibus, utrinque subrotundatis initio hyalinis, dein olivaceis, intense brunneis 56-62 × 29-32, basi minute apiculatis, utrinque longissime appendiculatis.

Hab. in fimo equino et bovino, in Amer. bor.

6. **Sordaria kansensis** (Griff.) Sacc. et D. Sacc. *Pleurage kansensis* 2034
Griffiths Mem. Torr. Bot. Cl. 1901, p. 83, tab. VIII, fig. 6-8. — Peritheciis sparsis v. aggregatis, immersis v. superficialibus, superne pilis septatis olivaceo-brunneis, flexuosis, vestitis, 600–800 × 375–450, tenui-membranaceis, junioribus virescentibus, maturis vero nigris, ostiolo papillato cylindraceo, plerumque curvo; ascis octosporis cylindraceis apice rotundatis breve stipitatis 180-240 × 26-32; paraphysibus ventricosis, agglutinatis, ascos superantibus; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis 26-35 × 18-21, ex olivaceo tandem atro-brunneis, utrinque longe ap-

pendiculatis; appendicibus ex filamentis duobus longitudinaliter coalitis formatis.

Hab. in fimo bovino, equino, in Americæ bor. pluribus locis. — Appendices primariæ nullæ.

7. **Sordaria multicaudata** (Griff.) Sacc. et D. Sacc. *Pleurage multicaudata* Griffiths Mem. Torr. Bot. Cl. 1901, p. 85, tab. VI, fig. 7–9. — Peritheciis sparsis semiimmersis 900 × 600 subcoriaceis virescentibus tandem opace nigris, piriformibus v. globulosis, pilis longis, rectis, atro-brunneis septatis, superne vestitis, ostiolo papilliformi v. cylindraceo, curvulo; ascis octosporis, clavatis, sursum attenuatis et rotundatis, breve stipitatis, 225-260 × 42-58; paraphysibus latis ascos paullo superantibus; sporidiis distichis, ellipsoideo-oblongis, utrinque rotundatis 40-45 × 20-25, ex olivaceo-flavido tandem opace brunneis, appendicibus primariis nullis, secundariis brevibus, filiformibus, sporidium totum obtegentibus, polaribus paullo longioribus. 2035

Hab. in fimo bovino, Highmore et Biloxi Amer. bor. — Perithecia inferius pilis longis, flexuosis, septatis vestita.

8. **Sordaria superior** (Griff.) Sacc. et D. Sacc. *Pleurage superior* Griff. Mem. Torr. Bot. Cl. 1901, p. 68, t. 19, fig. 14–16. - Peritheciis superficialibus, sparsis, membranaceis brunneis, piriformibus 450–600 μ. diam., ostiolo breve donatis setulis brevibus, septatis vestitis; ascis octosporis, clavatis, longe stipitatis 250–275 × 30–40; paraphysibus pluriseptatis asco longioribus; sporidiis distichis, ellipsoideis 23-27 × 12–14, intense brunneis v. olivaceis, longissime appendiculatis. 2036

Hab. in fimo vaccino, Summit in Montana Amer. bor. (Griffiths et Lange).

9. **Sordaria anomala** (Griff.) Sacc. et D. Sacc. *Pleurage anomala* Griff. Mem. Torr. Bot. Cl. 1901, p. 56. — Peritheciis subimmersis v. superficialibus v. in mycelio griseo brunnao denso insidentibus, membranaceis, 300-350 μ. diam. nigris vel inferne intense brunneis, piriformibus, ostiolo papillato curvo nigro donatis; ascis 4-sporis, cylindraceis apice subrotundatis, filiformi-pedicellatis 165-190 × 18-21; paraphysibus asco æquilongis, ventricosis; sporidiis monostichis, ellipticis vel subglobosis, superne rotundatis inferne truncatis 13-16 × 18-21, intense brunneis; primaria appendicula sporidio æquilonga, cylindrica, curvula, secundaria varie longa. 2037

Hab. in fimo vaccino, New York City Amer. bor.

10. **Sordaria erostrata** (Griff.) Sacc. et D. Sacc. *Pleurage erostrata* Griff. Mem Torr. Bot. Cl. 1901, p. 71, tab. 4, f. 11-13. — Peritheciis sparsis omnino superficialibus 180-225 μ. diam. submembranaceis, maturitate nigris, setulis longis septatis, flexuosis, brunneis vestitis, sphæricis, erostratis; ascis octosporis, clavatis, breve stipitatis 48-54 × 16-21; paraphysibus nullis; sporidiis distichis ellipsoideo-ovatis, initio hyalinis, dein olivaceis vel intense brunneis 11-13 × 6,5-8, breve appendiculatis. 2038

Hab. in fimo equino, Aberdeen S. D. in fimo vaccino, Tucson, Ariz., Rooks Co., Kansas, Amer. bor. (Tyler, Bartholomew, Long etc.).

11. **Sordaria? hyalina** Griff. in Mem. Torr. Bot. Cl. 1901, p. 48. — Peritheciis sparsis, immersis, subglobosis, circ. 150 μ. diam., membranaceis, brunneis, levibus; ostiolo papillato v. nullo; ascis octosporis, superne rotundatis v. truncatis, apertis, deorsum attenuato-stipitatis 45-55 × 5-6; paraphysibus non visis; sporidiis oblique monostichis, ellipticis, utrinque subrotundatis 4,5-5 × 2,5-3 hyalinis. 2039

Hab. in fimo vaccino, equino et caprino Amer. bor. — Si sporidia constanter hyalina, certe novi generis typus.

12. **Sordaria tetraspora** Wint. in Hedw. 1871, n. 9, p. 161, Griff. Mem. Torr. Bot. Cl. 1901, p. 62, tab. 4, fig. 1-3, *Sord. minuta* Fuck. — Syll. I, p. 231 — var. *tetraspora* Wint. Die deutschen Sordarien, p. 37. — A typo differt sporidiis in quoque asco quaternis 16-22 × 13-14; ascis 100-110 × 18; peritheciis minoribus nempe 350-500 × 140-180. 2040

Hab. in fimo murino in Saxonia, in fimo equino et in graminibus putridis in Amer. bor.

13. **Sordaria vestita** (Zopf) Sacc. et D. Sacc. *Eusordaria vestita* Zopf, Zeitschrift gesammt. Naturwissenschaften 1883, p. 556, tab. 6, fig. 10-19, *Podospora vestita* (Zopf) Wint. Pilzfl. II, p. 176, *Pleurage vestita* (Zopf) Griff. Mem. Torr. Bot. Club. 1901, p. 76. — Peritheciis vulgo dense gregariis, piriformibus, 700-750 μ. alt., 400-500 μ. cr. pilis longis, olivaceis v. brunneis, simplicibus v. parce ramosis, tenuibus, subinde fasciculatis omnino vestitis, circa ostiolum obscurius coloratis; ascis clavatis, utrinque tenuatis, stipitatis, aparaphysatis 180-210 × 40-55; sporidiis ellipsoideis atro-viridibus, 28-35 × 18-22, basi truncatis et appendice primaria cylindracea auctis, appendicibus secundariis cylindricis, 3-4, varie curvatis in apice sporidia et infra apicem appendicis primariæ additis. 2041

Hab. in fimo equino, vaccino etc. in Germania et America boreali.

14. **Sordaria coprophila** (Fr.) Ces. et De Not. — Syll. I, p. 231 — Huc ducenda est *Bovilla Caproni* Sacc. — Syll. I. pag. 391. — seu *Sphaeria bovilla* Cooke, quae est illius status infans, testibus Hennings et Salmon: cfr. Hedw. 1903, p. (183).

HYPOCOPRA Fuck. — Syll. I p. 240, IX p. 496, XI p. 279, XVI p. 433.

1. **Hypocopra montanensis** (Griff.) Sacc. et D. Sacc. *Sordaria montanensis* Griff. in Mem. Torr. Bot. Club. 1901. p. 49, tab. III, fig. 1-3 et tab. 19, fig. 13. — Peritheciis sparsis, immersis 750-900 × 450-600, membranaceis, brunneo-nigris, subglobosis, in collum longum cylindraceum desinentibus, in parte superiore setis brevibus, densis acuminatis septatis vestitis; ascis octosporis, cylindraceis, apice rotundatis vel truncatis vel apertis, longe stipitatis, 340-400 × 29-32; paraphysibus filiformibus, septatis, asco paullo longioribus; sporidiis oblique monostichis, ellipsoideis, utrinque paullo rotundatis 45-51 × 24-27, strato hyalino obvolutis. 2942

Hab. in fimo equino et vaccino, Missoula, Summit in Amer. boreali.

2. **Hypocopra kansensis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 15. — Peritheciis ovatis 0,5-1 mm. alt. 0,5-0,8 mm. crass. in stromate immersis, ostiis erumpentibus, hemisphaericis, poro pertusis; stromatibus nigris subconvexis 1-2 mm. diam. v. confluentibus circ. 1 cm. diam.; ascis cylindraceis, p. sp. 200-230 × 25-30; paraphysibus 4-5 μ diam.; sporidiis oblique monostichis, ellipticis utrinque acutulis 42-52 × 18-22, hyalinis. 2943

Hab. in fimo vaccino, Rooks Co., Kansas, in Amer. bor. — Ab *H. fimeti* Pers. sporidiis multo latioribus differt.

3. **Hypocopra pisana** Barsanti, N. giorn. bot. ital. 1904, p. 416. — Peritheciis gregariis ac saepe dense confertis, superficialibus 300 μ latis, in sicco rugulosis, udis levibus, membranaceo-coriaceis, ostiolo minuto, minime prominulo; ascis cylindraceis, non vel vix stipitatis aparaphysatis 133 × 17, octosporis; sporidiis atris, oblique monostichis, ellipticis, 22,8 × 9-5, circum. hyalino tenui obvolutis. 2944

Hab. in ossibus equinis in silva Pisana Italiae. — Ad gen. *Roselliniam* nutat et tunc vix *Hypocopra*.

4. **Hypocopra alpina** (Griff.) Sacc. et D. Sacc. *Sordaria alpina* Griff. in Mem. Torr. Bot. Club 1901, p. 50, tab. 19, fig. 4-6. — Perithe- 2945

ciis immersis, sparsis vel gregariis, piriformibus, membranaceis, inferne olivaceis, superne nigris, 0,5 × 1 mm. diam., ostiolo longo cylindrico donatis, in parte superiore dense vestitis; setulis brevibus, pluriseptatis, brunneis; ascis octosporis, cylindracis, superne contractis v. rotundatis, longe stipitatis 270-350 × 18-20; paraphysibus numerosis, septatis, ad septa subconstrictis, asco subæquilongis; sporidiis monostichis, ellipticis, utrinque rotundatis olivaceo-brunneis 20-37 × 12-14, hyalino-apiculatis et muco obvolutis.

Hab. in fimo vaccino et equino, Summit, Mont. Amer. bor.

5. **Hypocopra fimicola** (Rob.) Sacc. — Syll. I, pag. 240. — f. **microspora** Starb. in Arkiv. för Botan. 1904, Band. 2, p. 14. — Peritheciis 200-300 μ. latis, 350-400 μ. altis; ascis 58-65 × 9-10; sporidiis 12-14 × 6-7,5. 2046

Hab. in fimo canino, Santo Angelo prope Cachoeira, Brasiliæ. — Nullo modo nisi ascis sporidiisque minoribus a typo recedit.

6. **Hypocopra seminuda** (Griff.) Sacc. et D. Sacc. *Sordaria seminuda* Griff. in Mem. Torr. Bot. Cl. 1901, p. 50. — Peritheciis immersis, sparsis vel gregariis, piriformibus, membranaceis, basi olivaceis, superne nigris 500-600 × 300-400, ostiolo papillatis, superne setulis brevibus pallide brunneis vestitis; ascis octosporis, cylindricis, superne subrotundatis vel apertis, longe stipitatis, 180-200 × 12-14; paraphysibus filiformibus, septatis, persistentibus, raro asco longioribus; sporidiis oblique monostichis, ellipsoideis raro ovatis 16-22 × 10-12, olivaceo-brunneis, apiculo brevi, hyalino, cylindrico donatis et muco obvolutis. 2047

Hab. in fimo equino, Summit, Mont. Amer. bor.

PHILOCOPRA Speg. — Syll. I p. 249, IX p. 494, XVI p. 434.

1. **Philocopra heterochæta** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths Mem. Torr. Bot. Cl. 1901, pag. 86, tab. XIX, fig. 1-3. — Peritheciis superficialibus vel basi insculptis, sparsis, tenue membranaceis, olivaceo-nigricantibus, subdiaphanis 700 × 450, pilis septatis, agglutinatis, brevibus tectis, excluso ostiolo papilliformi; ascis 16-sporis, cylindraceo-clavatis, sursum tenuatis rotundatisque, breve crasse stipitatis, 230-240 × 34-40; paraphysibus valde ventricosis, agglutinatis, interdum indistinctis; sporidiis biseriatis, ellipsoideis, utrinque rotundatis 27-34 × 18-20; appendicibus primariis nullis, secundariis utrinque binis, distinctis filiformibus, inferioribus, longioribus, flexuosis. 2048

Hab. in fimo bovino, Family, Montana Amer. bor.

2. **Philocopra dakotensis** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2049
Mem. Torr. Bot. Cl. 1901, p. 87, tab. VII, fig. 17–19. — Peritheciis sparsis, superficialibus vel basi leviter immersis, piriformibus, 600 × 375, tenue membranaceis, fuscis diaphanis, pilis septatis, fuscis, in fasciculos agglutinatis, superne tectis, ostiolo papillato-conico, curvulo; ascis 220 × 30-40; paraphysibus subventricosis ascos superantibus; sporidiis 2-4-seriatis, ellipsoideis, utrinque rotundatis 18-23 × 12-15 ex olivaceo opace brunneis; appendicibus primariis brevibus cylindraceis, rectis, secundariis longissime subulatis.

Hab. in stercore cuniculorum et in fimo bovino, Ft. Lee, New Jersey, Brookings, Austin etc. Amer. bor.

3. **Philocopra collapsa** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2050
Mem. Torr. Bot. Cl. 1901, p. 89, tab. X, fig. 14–18. — Peritheciis sparsis v. aggregatis, semiimmersis, 500-600 × 400-450, tenuimembranaceis, e virescenti brunneis, piriformibus vel subglobosis ubique pilis longis septatis, flexuosis, brunneis vestitis; ostiolo papillato vel cylindraceo, nigro; ascis 64-sporis, fusiformibus, sub apice rotundato-constrictis, breve stipitatis 210 × 65; paraphysibus ventricosis ascos superantibus; sporidiis pluriseriatis, ellipsoideis, utrinque rotundatis 18-21 × 10-14, ex olivaceo opace brunneis; appendicibus primariis longissimis subclavatis, secundariis brevibus cuspidatis.

Hab. in stercore cuniculorum, New York, Auburn etc. Americæ bor.

4. **Philocopra adelura** (Griff.) Sacc. et D. Sacc. *Pleurage* Griffiths 2051
Mem. Torr. Bot. Cl. 1901, p. 91, tab. X, fig. 11–13. — Peritheciis immersis, sparsis, 750 × 450, tenui-membranaceis, opace brunneis, piriformibus, ostiolo papillato-cylindraceo glabro; ascis 64-sporis, clavato-fusoideis, sursum tenuatis obtusisque, breve stipitatis 370 × 75; paraphysibus ventricosis agglutinatis ascos superantibus; sporidiis pluriseriatis, ellipsoideis utrinque rotundatis 26-32 × 13-19, ex olivaceo opace brunneis; appendicibus primariis cylindraceis, spora brevioribus et persistentibus, secundariis filiformibus, initio prælongis dein abbreviatis.

Hab. in fimo cuniculorum, Auburn, Amer. bor. — *Phil. pleiosporæ* peraffinis.

5. **Philocopra Griffithsii** Sacc. et D. Sacc. *Sordaria philocoproides* 2052
Griff. in Mem. Torr. Bot. Club. 1901, p. 54. — Peritheciis sparsis, immersis, subglobosis, ostiolo papillato vel indistincto donatis,

300-400 μ. diam., membranaceis, nigris, setulis continuis, pauci, intense brunneis, vestitis; ascis 32-sporis cylindraceo-clavatis, superne subrotundatis vel apertis, breve stipitatis, 90-110 × 13-20; paraphysibus filiformibus, septatis, asco paullo longioribus; sporidiis distichis, subapplanatis, subellipticis vel subcircularibus, utrinque rotundatis, 8 × 5,5–8.

Hab. in fimo cuniculorum, New Jersey Amer. bor.

COPROLEPA Fuck. — Syll. I p. 248, IX p. 493, XVI p. 434.

1. **Coprolepa dakotensis** (Griff.) Sacc. et D. Sacc. *Hypocopra dakotensis* Griff. Mem. Torr. Bot. Cl. 1901, pag. 97, tab. XII, f. 6-8. 2053

Peritheciis immersis, sparsis vel in minutos greges 2-4 congestis, 800 × 600, piriformibus, basi mycelio albo demum pulviniformi stromatico immersis, ostiolo papillato nigro nitido e stromate emergente; ascis octosporis apice rotundatis obtuse breve stipitatis 225-265 × 37-40, apice jodo cæruleo tinctis; paraphysibus filiformibus, septatis, ascos superantibus, sporidiis biseriatis ellipsoideis, utrinque rotundatis, 32-38 × 17-19, e flavido demum atre brunneis, strato gelatinoso late obductis.

Hab. in fimo equino, Aberdeen S. D. Amer. bor. (Tourne'). — A *Coprol. merdaria* sporidiis minoribus, biseriatis distinguitur.

2. **Coprolepa rostrata** (Griff.) Sacc. et D. Sacc. *Hypocopra rostrata* Griff. Mem. Torr. bot. Cl. 1901, p. 99, tab. XII, fig. 15-18. — Peritheciis immersis in parvos soros congestis et mycelio denso parenchymatoso albo-brunneo immersis, subglobosis vel ovoideis 300-400 μ. diam., inferne albis, ostiolo nigro, nitidulo prominenti-rostellato: ascis octosporis, cylindraceis, apice rotundatis, breve stipitatis 213-286 × 21, jodo cæruleo tinctis; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis obliquo monostichis, ellipsoideis, utrinque rotundatis 29-32 × 13-18 e flavido opace brunneis, strato hyalino obvolutis. 2054

Hab. in fimo equino, Tucson, Arizona, Amer. bor.

3. **Coprolepa parvula** (Griff.) Sacc. et D. Sacc. *Hypocopra parvula* Griff. Mem. Torr. bot. Cl. 1901, pag. 99, tab. XIX, fig. 7-9. — Peritheciis immersis et in greges minutos congestis 300-450 μ. diam., tenui-membranaceis, inferne albis et pilis flexuosis cum stromate contextibus vestitis, ostiolo papillato e stromate crustaceo levi emergente, glabro; ascis octosporis, cylindraceis, apice rotundatis jodoque cæruleo tinctis, longe stipitatis 95-105 × 9-12, paraphysibus filiformibus obsolete stipitatis; sporidiis oblique mo- 2055

nostichis ellipsoideis, utrinque rotundatis, vulgo basi acutiusculis 10-13 × 6-7, strato mucoso hyalino obvolutis.

Hab. in fimo bovino, Sumit Mont., Amer. bor. (Griffiths et Lange).

CERATOSTOMA (Fr.) Sacc. — Syll. I p. 215, IX p. 481, XI p. 278, XIV p. 489, XVI p. 427.

1. **Ceratostoma decipiens** Sacc. et Flag. in Atti Congr. bot. di Palermo 1902, p. 49. — 256

Peritheciis subsparsis, ligno molli initio immersis, demum, pro parte, liberatis, globosis, nigris, glabris, 500-600 μ. diam., carbonaceis, ostiolo cylindraceo-conoideo, 250-300 × 70 præditis; ascis cylindraceis, apice obtusulis, deorsum breviter tenuatis, 70-80 × 4-5, octosporis; paraphysibus genuinis nullis; sporidiis recte monostichis, ovato-ellipsoideis, 9-11,5 × 5-5,5 fuligineo-olivaceis, plerumque biguttatis.

Hab. in ligno carioso salicino, Rigny s. A. Galliæ. — Affine *C. Avocettæ*, differt præcipue ostiolo breviore, ascis longioribus etc.

ROSTRELLA A. Zimm. Bull. Inst. bot. Buitenzorg 1900, IV, p. 19 (Etym. *rostrum* ob formam ostioli). — Perithecia immersa, globulosa, ostiolo longe rostrato emergente prædita. Asci maturi evanescentes. Sporidia ellipsoidea, uno latere membranula annuliformi prædita, continua, hyalina. Mycelium endogenum macroconidia brunnea et microconidia quoque generans. — *Microasco* affine genus videtur, sed si sporidia jugiter hyalina maneant, ad Hyalosporas transferendum est.

1. **Rostrella Coffeæ** A. Zimm. l. c. — 257

Peritheciis globulosis, 100-160 μ. diam., immersis, in ostiolum rostratum emergens, 200-260 μ. long., 20 μ. cr. productis; sporidiis generis, 6 × 4, in apice ostioli in cirrum v. globulum eructatis; macroconidiis in ramulis lateralibus acrogenis, globosis, brunneis 10-15 μ. diam.; microconidiis catenulatis, inferioribus longioribus, supremis globulosis crassioribusque, usque 9-10 μ. diam.

Hab. in cortice jam emortuo Coffeæ arabicæ, C. libericæ, Erythrinæ lithospermæ, Albizziæ moluccanæ, Cedrelæ serratæ in insula Java. — Morbum gravem cancerosum plantis matricibus affert.

MICROASCUS Zuk. — Syll. IX p. 483, XI p. 279.

1. **Microascus nidicola** Massee et Salm. Copr. fungi I, p. 380, f. 62-65. — Peritheciis nigris, glabris, carbonaceo-membranaceis, sparsis, matrice subimmersis, subglobosis 350 μ. diam., ostiolo brevi conico, contextu parenchymatico densissimo e cellulis polygonis, nigro-fuscis, plus minus opacis 8-10 μ. latis composito; ascis numerosis subgelatinosis, ellipticis v. globoso-ellipticis, 10-13 × 6-8, octosporis, citissime diffluentibus; sporidiis minutis anguste sublunulatis, utrinque acutis, levibus, hyalinis v. stramineis 7,5-8 × 2.

Hab. in nido vetusto Bombi spec., Kew Britanniæ.

2. **Microascus variabilis** Mass. et Salm. Coproph. fungi I, pag. 349, fig. 24. — Peritheciis gregariis, matrice subimmersis, parvulis 150-200 μ. diam., subglobosis, ostiolo minuto papilliformi v. plus minus elongato, cylindraceo, interdum flexuoso, nigris, subcarbonaceis, fragilibus, contextu parenchymatico e cellulis densis, opacis, distinctis, minutis, 3-5 μ. latis composito; perithecii parte superiore pilis rigidis, paucis, sparsis fuligineis, interdum obsoletis instructa; ascis minutis subglobosis, subgelatinosis 7-8 μ. diam., citissime diffluentibus, 8-sporis; sporidiis crasse, interdum irregulariter, lunulatis, minutis 3-3,5 μ. long., utrinque obtusis, levibus, dilutissime brunneis.

Hab. in fimo Dolichotidis patagonicæ, Kew Britanniæ.

HYPOXYLON Bull. — Syll. I p. 352, IX p. 543, XI p. 285, XIV p. 509, XVI p. 445.

1. **Hypoxylon neocaledonicum** Har. et Pat. Journ. de Bot. 1903. p. 14. — Stromata turbinato, stipitato, carbonaceo, indurato, atro, apice capitato, minute sinuoso-areolato, vix nitenti, centro leniter depresso ex ostiolis prominulis papillato intus fibroso-lignoso, albido-fuliginoso; peritheciis paucis, erectis, ovoideis, atris, omnino immersis; ascis cylindraceis, octosporis, paraphysibus immixtis; sporidiis monostichis, atro-brunneis, rectis v. leniter curvis, naviculatibus, 25-32 × 6.

Hab. ad lignum mortuum, Coinde, Carrela Novæ Caledoniæ (Bernier). — Affine *H. turbinato*, a quo differt stromate apice rimoso-areolato, sporidiis longioribus. Stroma 1 cm. long., 8 mm. cr.

2. **Hypoxylon regale** Morgan, Journ. of Mycol. 1904, p. 162. — Stromate superficiali in plagulas minutas, irregulares effuso, e peritheciis confluentibus omnino formato; peritheciis amplis, globosis, nigris, ostiolo minute papillato; ascis cylindricis, breve stipitatis,

octosporis, 150-170 × 10-12; sporidiis oblique monostichis, ellipticofusoideis, inæquilateris, brunneis, 20-27 × 9-11; paraphysibus tenuissimis.

Hab. in ligno denudato, molli, Aceris, Liriodendri etc. Preston, Ohio Amer. bor. — Perithecia in quaque plagula 2-3 vel numerosiora, 700-1000 μ. diam.

3. **Hypoxylon multiforme** Fr. — Syll. I p. 363. — f. **minor** Starb. 2062
Ascom. Regnell. exped. II, 1901, pag. 9. — A typo differt perithecis minoribus sporidiisque 7,5-9 × 4-5.

Hab. ad truncos, Paraguari, Paraguay.

4. **Hypoxylon cantareirense** P. Henn. Fungi S. Paul. III p. 207 Hedw. . 2063
— Stromatibus orbiculari-convexis, depressis, gregariis, interdum confluentibus, 2-6 mm. diam., atro-carbonaceis, cinereo vel cretaceo-pruinosis, ostiolis atris, papillatis, pertusis; perithecis immersis, ovoideis ca. 1 mm. diam.; ascis cylindraceo-clavatis, obtusis, 8-sporis, ca. 180 × 10-13, paraphysibus hyalinis, filiformibus; sporidiis oblique monostichis, oblonge navicularibus, obtusis vel subacutiusculis, atris 23-30 × 9-12.

Hab. in truncis emortuis, Serra da Cantareira S. Paolo Brasiliæ. — Affine *H. multiformi* sed sporidiis crassioribus præcipue distinctum.

5. **Hypoxylon cohærens** (Pers. Fr. — Syll. I, p. 361. — var. **bra-** 2064
siliense Starb. Ascom. Regnell. exped. II, 1901, p. 8, fig. 4. — A typo vix differt superficie stromatis gyroso-tuberculata (in typo levigata), sporidiis conspicue minoribus, nempe 9-11 × 4-5 (ascis p. sporif. 65 × 6-7).

Hab. in cortice crassiore, Hamburgerberg, Rio grande do Sul Brasiliæ.

6. **Hypoxylon Dussianum** Pat. in Duss Enum. Champ. Guadel. 1903, 2065
p. 74. — Globulosum, sessile, sparsum v. aggregatum, brunneo-atrum, ostiolis vix exstantibus punctulatum, fragile, intus album; perithecis immersis, peripherice ubique dispersis, ovoideo-globosis, ¹/₄ mm. diam.; ascis . . . . ; sporidiis ovoideis, inæquilateralibus, exiguis, 8-10 × 5-6.

Hab. in trunco Tournefortiæ volubilis, Camp Jacob Guadalupa (Duss). — Affine *H. areolato* sed sporidia minora.

7. **Hypoxylon subrutilum** Starb. Ascom. Regnell. exped. II, 1901, p. 10, 2066
fig. 7-8. — Stromatibus cortice nidulantibus, erumpentibus pulvinato-hemisphæricis, acutiuscule subrotundo-determinatis, ex perithecis tuberculatis, sparsis vel confluentibus primo rubello-um-

brunis vel tabacinis, intus, præsertim basi coccineis, denique fuscо-atratis 2-5 × 1-2 mm.; peritheciis sphæricis, vertice subapplanatis, nitide prominulo papillatis, denique ore pertusis, villo furfuraceo vestitis, densissime stipatis, vix 500 μ. diam., contextu coriaceo-carbonaceo; ascis octosporis, cylindraceis, breve pedicellatis, 95-125 × 10-12 p. spor. 75-95 μ. long.; sporidiis monostichis, ellipsoideo-oblongatis, inæquilateris, utrinque obtusatis, atro-fuscis.

Hab. in ramulis corticatis, Porto Alegre, Rio Grande do Sul Brasiliæ. — *H. rutilo* maxime affine, sed præcipue sporidiis differt.

8. **Hypoxylon juruense** P. Henn. Fungi Amaz. II, p. 260. — Stromatibus rotundato-pulvinatis carbonaceis, ruguloso-subverrucosis vel subtavosis, ochraceo-ferrugineo-pruinosis, intus atris, ostiolis punctoideis subelevatis vel subcupulato-immersis. 1½-4 mm. diam.; perithecis immersis subglobosis; ascis cylindraceo-clavatis, apice rotundatis, stipitatis, 8-sporis, ca. 100-130 μ. longis, p. spor. 60-80 × 6-8; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, ellipsoideis v. oblongis, sæpe subinæquilateralibus, utrinque obtusis, 1-guttulatis, atro-brunneis, 10-15 × 5-6.

Hab. in ramis siccis, Rio Juruá, Boim Fim Amazoniæ. — Præcipue stromatibus subflavosis species dignoscenda.

9. **Hypoxylon ohiense** Ellis et Everhart — Syll. XI, p. 287. — Cfr. Harrim. Alaska Exped. Crypt. pag. 34, pl. IV, fig. 2. — Ascis clavatis tenuiter stipitatis, 68-80 × 7-8; sporidiis oblique monostichis, oblongo-ellipsoideis, 5,5-7,5 × 2,5-3,5, fuligineis; stromate 2-4 cm. longis et latis; perithecis 1,5-1,7 mm. longis.

Hab. ad truncos Abietis, Sitka Alaska (Trelease).

10. **Hypoxylon tahitense** Baccarini in N. Giorn. bot. it. 1904, p. 417, tab. IV. — Stromate effuso, crassiusculo nigro, tubercula quamplurima erecta, globosa, breviter pedunculata, pisi magnitudinem æquantia vel superantia, peritheciifera, gerente; tuberculis minute mamillosis, ob perithecorum ostiola breviter protuberantibus, extus atris, intus carbonaceo-badiis; perithecis crebris, monostichis, ad 700 μ. latis; ascis confertis cylindricis breviter pedunculatis, aparaphysatis 150-170 μ. longis; sporidiis cymbiformibus, monostichis, inæquilateralibus, 22-23 × 7-8.

Hab. ad ligna, Otaiti Polynesiæ. — Ad subg. *Cænopus* spectat.

11. **Hypoxylon (?) sulcatum** Starb. in Arkiv för Botan. 1904, Band. 2, p. 20, fig. 47-48. — Stromatibus diatrypoideis, plane a matrice distinctis, immersis, applanatis, lenticulariter prominentibus, varie plerumque rotundatim determinatis, interdum paullum lobulatis,

confluentibus, acute marginatis, fusco-nigris vel nigris, carbonaceis, amœne sulcatis, sulcis e linea media radiantibus, interdum patellaribus, annulo tumidulo cinctis, plerumque longitudinalibus, costis elatiusculis determinatis; peritheciis totum stroma, margine latiusculo excepto occupantibus, plane immersis, monostichis, dense constipatis, mutua depressione angulatis, vix ostiolatis; stromatibus usque ad 1,5 cm. long., 0,5 cm. latis vel circ. 2 cm. diam. 1,5 mm. altis; ascis sporidiisque non visis.

Hab. in cortice prope Rio Grande do Sul Brasiliæ. — Species mirabilis ulterius inquirenda; sec. spec. originale et figuram apud Montagne *H. heterostomum* Mont. affine videtur.

12. **Hypoxylon microsorum** Penz. et Sacc. in Malpighia 1901, p. 225, 2070
Ic. fung. Jav. t. XIX, f. 2. — Stromatibus gregariis, depresso-hemisphæricis, minutis vix 1 mm. diam. rubido-fuscis, intus pallidioribus, fere levibus; peritheciis immersis, 8-12 in quoque stromate, globulosis 500 μ. diam., ostiolis punctiformibus obtusiuscule papillatis vix exstantibus, nigris, ascis cylindraceis (jam fere resorptis); sporidiis octonis, monostichis, elliptico-citriformibus, 9–10 × 7, e latere levissime compressis, atro-fuligineis.

Hab. ad ramos arborum corticatos, putres, Tjibodas, in insula Java. — Spectat ad sect. *Sphæroxyla colorata,* sed ad *Clitoxyla* nutat.

13. **Hypoxylon leucocreas** B. et Rav. — Syll. I, p. 366 — Rehm in Ann. Mycol. 1904, p. 176. — Stromatibus lentiformibus, plus minusve lobulatis, subplanis, extus atris, vix nitentibus, ostiolis prominentibus plurimis exasperatis, intus albis, 2–4 mm. d. 1–1,5 mm. alt.; peritheciis globulosis, submonostichis 0,3–0,4 mm. diam.; ascis cylindraceis tenerrimis, p. sporif. 50 × 5, octosporis; sporidiis oblongis, utrinque rotundatis, 1-cellularibus, guttas oleosas 2 includentibus, fuscidulis 5–6 × 2–2,5 monostichis.

Hab. in trunco putri Ulmi, Texas Amer. bor. (Long).

14. **Hypoxylon Acaciæ** P. Henn. Fungi Afr. or. II, in Bot. Jahrb. XXVIII, p. 39. — Stromatibus erumpenti-superficialibus, pulvi- 2071
natis, carbonaceis, atro-brunneis, varia magnitudine, confluentibusque; peritheciis depresso-globosis intus pallidis, ostiolis verruciformibus obtusis; ascis cylindraceis, apice obtusis, octosporis; paraphysibus filiformibus hyalinis; sporidiis oblongis obtusiusculis, bi-guttulatis, fuscis 8-11 × 3-3,5.

Hab. in ramis Acaciæ, Usagara Afr. or. (Busse).

15. **Hypoxylon tenue** Starb. Ascom Regnell. exped. II, 1901, p. 10, 2072

fig. 9. — Stromate longe lateque effuso, 9 × 3-4, cm., arcte matrici adpresso, tenui, vix 400 μ. alto, irregulari, villo coccineo-fulvo, furfuraceo vestito, intus lateritio rubescenti, margine latiusculo tenuissimo sterili, nigricanti; peritheciis confertissimis globosis vel mutua pressione difformibus, superne inter se liberis, ostiolo sæpius villo carente fere umbilicato præditis, 300-400 μ. diam.; ascis octosporis, cylindraceo-clavatis, apice rotundatis, breve pedicellatis 90-100 × 8-11,5; sporidiis monostichis, elliptico-ovoideis, fuligineis 10,5-12 × 6-7,5; paraphysibus filiformibus diffluentibus.

Hab. ad truncos, San Tomas, Paraguari Paraguay. — *Hyp. crocato* maxime affine.

KRETZSCHMARIA Fr. — Syll. IX p. 565, XI p. 287, XIV p. 512, XVI p. 449, 1130.

1. **Kretzschmaria lichenoides** Rick apud Rehm, Hedw. XLIV, p. 6. — 2073
Stromate late effuso super corticem, placentiforme mycelio ramoso sub cortice extenso, super corticem stratum conidiophrum, ramosum, undulatum, lichenoideum, griseum, multifidum formante, dein in centro stromatis conidiophri stromate ascogeno oriente, stromatibus usque 10 cm. lat., 2 cm. cr., primitus griseis, dein brunneis, mutuo contactu compressis, irregularibus, rugosis, interne primitus niveis, dein atris; peritheciis nigris, difformibus, splendescentibus, ostiolis paucis, sed bene distinctis, atris; ascis cylindraceis, apice rotundatis et incrassatis 200-270 × 12, 8-sporis; sporidiis fusoideis, 1-cellularibus, 1-2-guttulatis, uno latere compressis, curvulis, fuscis, strato mucoso tenui obductis, 20-27 × 8-10, 1-stichis; paraphysibus filiformibus septatis, 2-4 μ. cr.

Hab. ad lignum, Sao Leopoldo, Rio grande do Sul Brasiliæ (Prof. Rick S. J.).

2. **Kretzschmaria scruposa** Har. et Pat. Journ. de Bot. 1903, p. 14. 2074
— Clavulis erectis obconicis, apice truncatis convexulis, deorsum attenuatis, simplicibus furcatisve undique scabrosis, fusco-atris e crusta stromatica grumosa, fusco-atra, latissime effusa assurgentibus; contextu albo coriacello, fragili; peritheciis paucis, 3-6, erectis ovoideis, osticlis punctiformibus, vix prominulis, scruposa parte immersis; sporidiis ovoideis, inæquilateris, atris, 10-12 × 6; clavulis conidiferis simplicibus sed apice capitato-inflatis, cinereis, levibus; conidiis minutis, ovoideis, levibus, vix 4 μ. longis.

Hab. ad calices Aleuritidis putres, Jahoué Novæ Caledoniæ

(Bernier). — *Kr. Helisco* affinis præcipue clavulis ubique scabrosis dignoscitur.

3. **Kretzschmaria australiensis** P. Henn. in Hedw. 1903 p. (83). — 2075
Stromatibus placentiformi-confluentibus, depresso-globulosis vel ovoideis, plus minus longe stipitatis, ferrugineis vel atris, ca. 2 mm. diam., ostiolis subconoideis; peritheciis subglobosis v. ovoideis; ascis clavatis, obtusis, p. spor. 200-300 × 8-10; sporidiis oblonge naviculariibus, utrinque obtusis, atris 25-35 × 7-10.

Hab. in arborum corticibus pr. Kuranda, N. Queesland Australiæ (Pritzel). —

4. **Kretzschmaria divergens** Starb. Ascom. Regnell. exped. II, 1901, 2076
p. 6, fig. 3. — Stromate communi parco, crustaceo-membranaceo, villoso-rugoso; stromatibus solitariis, dense cæspitosis, atratis, stipitatis; stipitibus ex eadem areola parvula nonnullis divergentibus, sæpe a basi liberis, interdum confluentibus, rugosiusculis vel sublevibus, deorsum angustioribus, tereti-compressis vel difformibus, sursum latioribus et annulato-incrassatis, 4-10 × 1-2 mm.; capitulis vulgo confluentibus e compressione difformibus, lenticularibus vel turbinatis, superne applanato-convexiusculis, centro papillulatis, inferne convexis, margine obtusissimis, carbonaceis, 3-8 × 1-3 mm., semper a stipite discretis; peritheciis verticaliter constipatis, subovoideo-ampullaceis, 500 μ diam., ostiolis curtis vix prominentibus; ascis octosporis cylindraceis, longissime pedicellatis, apice rotundatis, p. spor. 140-160 × 8-10; sporidiis anguste fusoideis, rectis vel curvulis, utrinque acutiusculis, 1-2-guttatis, monostichis, 28-35 × 6-7; paraphysibus copiosissimis, guttulatis, ramosis.

Hab. ad truncos Serra do Chapada, Matto Grosso Brasiliæ. — *Kr. Puiggarii* quam maxime affinis videtur.

5. **Kretzschmaria microspora** P. Henn. Fungi Amaz. II, p. 261. — 2077
Stromatibus cæspitose aggregatis confluentibusque, subovoideis haud stipitatis, atrofuscis, rugulosis, ostiolis papillatis. disco subannulato circumdatis; peritheciis paucis immersis, subglobulosis; ascis cylindraceo-clavatis, obtusis, 8-sporis, paraphysatis, 65-75 × $3^1/_2$; sporidiis oblongis subnaviculariibus, utrinque obtusis, atro-castaneis, 7-10 × 3-$3^1/_2$.

Hab. ad lignum emortuum, Rio Juruá, Juruá-Miry Amazoniæ. — Ascis angustissimis sporidiisque minutis dignoscenda species. *K. cænopus* (Fr.) Mont., observante cl. Henn. l. c., est species denuo inquirenda, nam adsunt exempl. Wrightiana cubensia sporidiis 30-

40 × 8-10 et alia Berkeleyana brasiliensia sporidiis 10 × 12 × 5-6, hinc duæ species.

DALDINIA De Not. et Ces. — Syll. I pag. 393, XI pag. 288, XVI p. 449.

1. **Daldinia argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 68. — 2078
Stromatibus 7-8 cm. alt., 1,5-2 mm. cr., intus septis horizontalibus subparallelis 20-25 subtenuibus atris, ornatis, nigris, pulvere detersili subumbrina velatis; clava cylindracea, apice obtusissime rotundata, basi eximie determinata, 40-60 mm. longa 25-30 mm. diam. minute, dense, obsoletissimeque papillato-ostiolata; ostiolis confertis minutissimis, vix prominulis; stipite 20-30 mm. longo 15-20 mm. diam., primo fusco-subpulverulento dein nudo, subnitidulo levi, non v. leniter hinc inde longitudinaliter rugoso; peritheciis dense constipatis, cylindraceis 1,5 mm. longis 0,5-0,75 mm. diam., non prominulis; ascis cylindraceis 6-7 μ. diam. mox evanescentibus; sporidiis monostichis, levibus, utrinque subacutiusculis 9-10 × 5, eguttulatis, navicularibus, opace fuligineis.

Hab. ad truncos, prope Puerto Pampa in Argentina (E. Kermes). — Species vix *D. angolensi* (Welw. et Curr.) Sacc. affinis.

2. **Daldinia clavata** P. Henn. Fungi blumenavienses II, in Hedw, 1902, 2079
p. 14. — Lignicola; stromatibus carbonaceis, clavatis, substipitatis, late compressis, atris, rufo-pruinosis, usque ad 6 cm. longis, 2 cm. latis, vertice rotundatis, interdum furcato-incisis, intus concentrice discolori-zonatis; peritheciis ovoideo-ellipsoideis ca. 1 mm. longis, 0,5-0,8 mm. latis, ostiolis punctiformibus, subpapillato-prominulis; ascis clavatis, apice obtusis 45-55 μ. longis, p. sporif. 35-45 × 7-9; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, atris, continuis 8-11 × 4-5; paraphysibus filiformibus, hyalinis, guttulatis ca. 1-1,5 μ. crassis.

Hab. in truncis, St. Catharina Brasiliæ austr.

3. **Daldinia cognata** Har. et Pat. Journ. de Bot. 1903, pag. 15. — 2080
Stromatibus gregariis, subglobosis in pedicellum brevissimum contractis, primo ferrugineo-pruinosis, dein atris nitentibusque, levibus 6-25 mm. diam., intus stratis concentricis albidis notatis, ostiolis minutis, vix prominulis, punctiformibus; peritheciis ovoideis, stromate immersis; sporidiis oblongis, atris, 8-10 × 4.

Hab. ad truncos Acaciæ emortuos, Tendea Nova-Caledonia (Bernier). — *Dald. vernicosæ* et *Dald. loculatæ* affinis sed sporidiis minoribus aliisque notis diversa.

4. **Daldinia cuprea** Starb. Ascom. Regnell. exped. II, 1901, pag. 5, fig. 2. — Stromatibus clavatis, teretiusculis v. subcompressis, 3,5-4,5 cm. longis, 1–1,5 cm. latis; contextu laxissimo albo, concentrice nigro-stratoso, cortice duriusculo, coriaceo-carbonaceo, castaneo v. obscure cupreo; stipite basi angustiore longitud. plicatulo, transversim tenuiter tuberculato-annulato, sursum sensim in receptaculum transeunte; receptaculo peritheciis prominentibus verruculoso, apice obtuso; peritheciis densis monostichis, sphæroideis, minute ostiolatis, 250 μ. diam. papillula annulatim truncata præditis; ascis octosporis, linearibus, apice rotundatis, 58-60 × 6-7; sporidiis monostichis, ovoideis, inæquilateralibus vel subcurvulis, fuscis, 10-11 × 5,5-6; paraphysibus numerosis, flexuosis, ramulosis, diffluentibus. 2081

Hab. ad truncos, Carro Negro, Paraguari Paraguay. — Pulcherrima species *D. angolensi* affinis.

5. **Daldinia Gollani** P. Henn. F. Indiæ orient. I, in Hedw. 1901, p. 339. — Stromatibus hemisphæricis v. subglobosis, sæpe confluentibus, carbonaceis, 0,5–1 mm. diam., rufo-brunneis, glabris, opacis, massa atra sporarum pulverulentis, intus stratis concentricis albidis v. fuscidulis nitentibus zonatis; peritheciis ovoideis v. oblongis ca. 0,6-0,8 mm. longis, 0,3-0,4 mm. latis, ostiolis haud prominulis; ascis cylindraceis, pedicellatis, apice obtusis, octosporis; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, castaneis 5-9 × 3,5–4. 2082

Hab. in ramis emortuis Fici Caricæ, Sivalik Range Indiæ orient.

6. **Daldinia Eschscholzii** (Ehrenb.) Rehm, Ann. Mycol. 1904, p. 173, *Sphæria* Ehrenb. F. Chamiss. p. 59, t. 18, fig. 8. — Stromatibus latis, basi sessilibus, subreniformiter orbicularibus, haud stipitatis, usque 6 cm. diam., 2 cm. altis, convexis, nigris, æqualiter tenuissime pruina cuprea obductis et in superficie ostiolis minimis punctulatis, intus pluries zonatis; zonis 1 mm. latis, flavo-fuscidulis, linea tenuissima fusca separatis, spongiosis, haud carbonaceis; peritheciis monostichis, oblongis, arcte congregatis 1-1,2 mm. longis 300-400 μ. latis; ascis cylindraceis, subevanidis; sporidiis ellipsoideis, rectis vel subcurvatulis, utrinque obtusis, fuscis, 1-cellularibus, 10–12 × 5. 2083

Hab. ad lignum putridum, Texas, Amer. bor. (Long et Luzon Phillippi, Chamisso). — A *D. concentrica* (Bolt.) imprimis stromate haud carbonaceo sed spongioso, pruina cuprea obducto, non

minus sporidiis minoribus diversa. Sec. hanc insignem pruinam cupream nostra exemplaria ad *D. Eschscholzii* pertinere videntur, quæ secundum descriptionem valde a *D. concentrica* divergit (Rehm).

7. **Daldinia vernicosa** (Schw.) Ces. et De Not. — Syll. I, p. 394. — 2084
f. **microspora** Starb. Ascom. Regnell. exped. II, 1901, pag. 6. — Recedit sporidiis elliptice v. circulariter disciformibus, angulosis, 8,5-10 × 5-6.

Hab. ad truncos mucidos, Guia, Matto Grosso Brasiliæ.

NUMMULARIA Tul. — Syll. I p. 395, IX p. 569, XI p. 288, XIV p. 513, XVI p. 1129.

1. **Nummularia pezizoidea** P. Henn. Fungi Amaz. III, p. 260 (Hedw). 2085
— Stromatibus primo tectis dein erumpentibus margine crasso cortice velatis, rotundato-discoideis atro-carbonaceis; ostiolis punctiformibus elevatis, ca. 4-8 mm. diam.; peritheciis immersis suboblongis; ascis clavato-cylindraceis, obtuse rotundatis, p. sp. 80-90 × 8-10; paraphysibus filiformibus guttulatis ca. 1 $^1/_2$-2 μ. crassis, hyalinis; sporidiis oblique monostichis, ovoideis v. subfusoideis, utrinque subacutis, brunneis 10-13 × 5-8.

Hab. in cortice arborum, Rio Juruá, Marary Amazoniæ. — Habitu *N. discretæ* æmula, sporidiis fusoideis omnino recedit.

2. **Nummularia commixta** Rehm, Hedw. XLIV, p. 6. — Stromatibus 2086
per corticem laceratam emergentibus, in cortice interiore linea atra diffusa late circumscriptis, oblongis, 1-4 cm. long., 0,5-1 cm. lat., 2 mm. cr., convexulis, fusco-atris, nitentibus, carbonaceis, papillulis minimis, semiglobosis apice truncatis, et impressis, poro vix perspicuo pertusis, subverruculosis; ascis cylindraceis longissimis, octosporis; sporidiis fusiformibus, rectis vel subcurvatis, 1-cellularibus, dilutissime brunneolis, 25-27 × 7-8, monostichis.

Hab. ad ramulum, Petropoli, Rio de Janeiro Brasiliæ (Doct. v. Höhnel). — Ostiolis minutis et sporidiis majusculis præcedistincta species.

3. **Nummularia fuscella** Rehm, Ann. Mycol. 1904, p. 176. — Stroma- 2087
tibus peridermio albescente lateraliter subconspicuo tectis dein nudis, oblongis vel orbicularibus, mox confluentibus, primitus distincte nigro-marginatis 1-2 cm. longis et latis, planis, subfuscis, ostiolis haud protuberantibus nigropunctatis, intus nigris, carbonaceis, corticem interiorem linea tenui nigra percurrentibus; peritheciis arcte congregatis, ovoideis, usque 0,8 mm. latis, monosti-

chis; ascis evanidis; sporidiis ellipsoideis, subfuscis, 1-cellularibus, 12-15 × 7.

Hab. ad lignum decorticatum Celtidis, Texas Amer. bor. (Long). — Proximum *Hypoxylon atropunctatum* (Schw.) Cooke (= *Anthostoma atropunctatum* Sacc.) sporidia 25-30 × 10-12 præbet; nostra sporidiis multo minoribus imprimis diversa, ad *Nummulariam* stromatis causa ponenda species; *Hyp. atropurpureum* Fr. colore atropurpureo, *Anthostoma formosum* Ell. et Ev. in Celtide, sporidiis 7-10 × 3-4 divergunt (Rehm).

4. **Nummularia flosculosa** Starb. Ascom. Regnell. exped. II, 1901, 2088
p. 11, fig. 10-11. — Stromatibus longe lateque effusis, subdeterminatis, crustæformibus, carbonaceis, intus atratis, extus sordide fusco-nigris 0,5-1 mm. altis; peritheciis monostichis, numerosis, densissime constipatis, cylindrico-obpiriformibus; ostiolis longiusculis hinc inde aggregatim erumpentibus.

Hab. ad truncos, Santo Angelo, Rio Grande do Sul Brasiliæ. — Ad superficiem stromatis in concavitatibus, linea circulari vel subflexuosa determinatis, ostiola aggregata ornamentum effiguratum patellarum 5-30, acutiuscule et verticaliter et annulatim marginatarum instar formant, qua re species mox cognoscenda. Concavitates ostiolorum 100-500 μ. diam.; perithecia 60-100 μ. diam. et 500 μ. alta. Asci et sporidia jam resorpta.

SOLENOPLEA Starb. Ascom. Regnell. exped. II, 1901, p. 13 (Etym. *solen* tubus et *pleos* plenus). — Stroma marginatum, fere totum peritheciis cylindricis altissimis plenum. Asci numerosissimis e parietibus perithecii ubique oriundi. Sporidia continua, fuliginea.

1. **Solenoplea microspora** Starb. l. c. fig. 13-15. — Stromatibus im- 2089
mersis v. erumpentibus, solitariis v. longitudinaliter confluentibus, ellipsoideis, utrinque subacuminatis, applanatis, extus carbonaceis, atris, 2-4 cm. long. 4-15 mm. latis; peritheciis anguste cylindraceis v. subprismaticis, stromatis altitudine, vulgo 8 mm., 1 mm. cr., membranaceis; ascis copiosissimis cylindraceis apice rotundatis, breve pedicellatis, p. sporif. 15-30 × 3-4; sporidiis octonis, monostichis, minutissimis, ovoideis e latere compressiusculis, medio de presso-biconcavis, olivaceis, 2-3 × 1-1,5, paraphysibus nullis.

Hab. ad truncos San Antonio pr. Asuncion, Paraguay. — *Nummulariæ discoideæ* affinis videtur.

CAMILLEA Fr. — Syll. I p. 346, IX p. 541.

1. **Camillea turbinata** (Berk.) Speg. cfr. Syll. IX, p. 541, n. 2203 nota — var. **obpatellata** Starb. Ascom. Regnell. exped. II, 1901, pag. 4, fig. 1. — Stromatibus turbinatis, apice acutiuscule marginatis, obpatellatis, basi 4-5 mm. lat., superne 8-17 mm. diam., 6-12 mm. alt., margine patellæ 1-3 mm. lato; peritheciis 2-3 mm. alt.; sporidiis ovoideis curvulis, utrinque rotundatis, fuligineis, 12-18 × 6-9. 2090

Hab. ad truncos putres, Santo Angelo pr. Cachoeira, Rio Grande do Sul Brasiliæ. — A var. *guaranitica* Speg. parum differt forma magnitudineque sporidiorum et stromatum.

PORONIA Will. — Syll. I p. 348, IX p. 542, XI p. 285, XVI p. 451.

1. **Poronia hemisphærica** Starb. Ascom. Regnell. exped. II, 1901, p. 12, fig. 12. — Stromate stipitato, e basi sclerotioidea, fusco-atra difformi et marcida, primitus verisimiliter claviformi, stipitem versus angustiore, subhorizontali 1,5 cm. alto, 5-8 mm. lato; stipite glabrescente vel rugosiusculo, longitudinaliter striato, coriaceo 4-5 cm. longo, 1-2 mm. cr., sursum sensim angustiore; capitulo hemisphærico infra plano vel fere concaviusculo, radiatim striatulo, sursum convexo ochraceo, margine acutiusculo, ostiolis prominulis, nigro-punctato, 4-5 mm. lato, 2-3 mm. alto, molliter carnoso dein fragili; ascis immaturis visis. 2091

Hab. in fimo equino prope Arecà, Matto Grosso Brasiliæ. — Affinis *Por. Doumetii* Pat.

2. **Poronia polyporoides** P. Henn. F. Indiæ or. II in Hedw. 1901, p. 340. — Stromatibus carnosis, pileiformibus, stipitatis, convexis, cretaceis, margine undulatis, superne atro-punctatis, 4-9 mm. d., extus pallidis, furfuraceis, stipite subtereti longe radicato, albido, subfurfuraceo, ca. 5 mm. longo, 1-1,5 mm. cr.; peritheciis immersis subglobosis, subhemisphærico-prominulis; ascis clavatis, obtusis 80-90 µ. longis, p. sporif. 60-65 × 7-8, octosporis; paraphysibus filiformibus, hyalinis 1-1,5 µ. cr.; sporidiis oblique monostichis, ellipsoideis, obtusis, 9-12 × 5-6, atris. 2092

Hab in ramis emortuis et ad terram, Saharanpur-Garden Indiæ orient.

SQUAMOTUBERA P. Henn. Hedw. 1903, p. (308) (Etym. *squama* et *tuber*). — Stromata subterranea (?) tuberiformia, rotundato-de-

pressa, intus subcarnosa, pallida, extus membranis subpapyraceis squarrosis vestita. Hyphæ fertiles septatæ, ramosæ. Conidia catenulata subglobosa v. ovoidea, hyalina. Perithecia stromate atro ubique immersa, ostiolis subhemisphæricis, punctiformibus, atris. Asci octospori, cylindracei. Sporidia oblongo-fusoidea, fusca. — *Penzigiæ* et *Engleromyceti* affine genus.

1. **Squamotubera Le-Ratii** P. Henn. l. c. Charact. gen. — Stromatibus 2093
siccis 7 cm. longis, 5 cm. lat., 15 mm. cr. squamis griseis vestitis; hyphis conidiophoris 2-4 μ. cr., conidiis longe catenulatis subgloboso-ovoideis, granulosis v. verrucosis, 6-9 μ. long.; peritheciis periphericis atro-carbonaceis, ellipsoideis v. ovoideis, 0,8-1 mm. long., 0,5-0,8 mm. cr., ostiolis prominulis; ascis cylindraceis, 8-sporis; sporidiis oblique monostichis, oblongo-fusoideis, utrinque obtusiusculis, 1-3-guttulatis, 12-17 × 4-6, atro-fuligineis.

Hab. subterranea?, in collibus pr. Nouméa Novo-Caledoniæ (Le Rat).

CAPNODIELLA Sacc. Syll. fung. I (1882) p. 74 (ut subg. *Capnodii*), *Sorica* Giesenh. Berichte Deut. Bot. Gesell. 1904, p. 195, t. XIII, — Stroma filiforme cylindricum apice perithecium singulum longicolle gerens; perithecium firmum, siccum subcorneum. Asci longe stipitati, clavati, octospori, aparaphysati. Sporidia globosa, unicellularia, brunnea. Adsunt adsociata pycnidia globulosa, brevius stipitata et conidiophora filiformia septata, apice capitulum conidiorum ferentia. — Videretur, teste cl. Giesenhagen, *Xylaria* simplex nec genus capnodiaceum.

1. **Capnodiella maxima** (B. et C.) Sacc. *Sorica maxima* (B. et C.) Gie- 2094
senhag. Berichte Deut. Bot. Gesell. 1904, p. 358, *Capnodium maximum* B. et C. — Syll. I, p. 74 — *Sorica Dusenii* Giesenh. Berichte Deut. Bot. Gesell 1904, p. 192. — Stromatibus vix 2 mm. longis, fasciculatis, ubique conidiophora simplicia piliformia gerentibus; conidiis minutis ovoideis, hyalinis; peritheciis oblongis longicollibus; ascis clavatis 8-11 μ. cr., cum stipite ca. 100 μ. long.; sporidiis subdistichis, 5-7 μ. diam., brunneis 1-guttatis; pycnidiis 150-170 μ. diam.; sporulis fusoideis 8-10 × 2, subhyalinis.

Hab. parasitica ad soros Polypodii crassifolii M. Serrat in prov. Rio de Janeiro Brasiliæ (P. Dusén) et Polypodii sp. in insula Cuba.

XYLARIA Hill. — Syll. I p. 309, IX pag. 523, XI pag. 283, XIV p. 504, XVI p. 442.

1. *Xyloglossa.*

1. **Xylaria polymorpha** (Pers.) Grev. — Syll. I, p. 309. — var. **acuminata** Starb. Ascom. Regnell. exped. II, 1901, p. 21, fig. 35–36. — Stromatibus subsessilibus basi nigricanti-villosis, sursum dilatatis abrupteque in apicem acuminatum sterilem contractis; peritheciis majusculis protuberantibus; sporidiis 22–25–32 × 6-8. 2095

Hab. ad truncos Rio Grande do Sul Brasiliæ et pr. Asuncion Paraguay. — Stromata 20–40 × 8-14 × 4-6 mm.

2. **Xylaria xanthophæa** Penz. et Sacc. in Malphighia 1901, p. 226, Ic. fung. Jav. t. XXII, fig. 3. — Stromate tereti-clavato, apice obtuso, carnosulo-molli, flavo-brunneo; parte ascigera superiori, extus ab inferiori sterili seu stipite vix distincta; peritheciis penitus immersis, in 4 v. 5 pluresque series dispositis, perfecte sphæricis, 400-500 μ. diam., nigris, sed non carbonaceis; ostiolis perexiguis vix visibilibus; ascis cylindricis, apice obtusulis 50-65 × 3,5-4; sporidiis oblique monostichis, ellipsoideis, minutis, 4–5 × 3,5 fuligineis. 2096

Hab. ad truncos, Tjibodas, in insula Java (M. Fleischer). — Ad sect. *Xyloglossa* pertinet. sed structura peculiari prædistincta.

3. **Xylaria Weinlandii** P. Henn. F. Indiæ orient. II, in Hedw. 1901, p. 341. — Stromatibus cylindraceo-clavatis, stipitatis, apice obtuso rotundatis, ferrugineo-corticatis, striatis v. rugulosis, 1-2 cm. longis, 2-3 mm. cr., intus farctis, pallidis; stipite tereti, strato, ferrugineo 1-2 cm. longo, 1-1,5 mm. cr.; peritheciis immersis, subovoideo-globosis, atris, 0,3-0,5 mm. diam., ostiolis subhemisphærico-prominulis, atris; ascis cylindraceo-clavatis, breve attenuato-stipitatis, apice obtusis, 150-160 × 7-8, octosporis; paraphysibus filiformibus, hyalinis, copiosis; sporidiis fusoideo-allantoideis, utrinque subacutiusculis, atris 20-28 × 5-7. 2097

Hab. in trunco emortuo, Novo-Guinea.

4. **Xylaria peperomioides** P. Henn. F Indiæ orient. II, in Hedw. 1901, p. 340. — Stromatibus cylindraceo-clavatis, longe stipitatis, clavula utrinque attenuata, apice conoideo-acuta, pallide umbrinis 1-4 cm. longis, 2 mm. cr., intus farctis pallidis; stipite flexuoso, longe radicato, atro-brunneo corneo, usque ad 4 cm. longo, 1 mm. cr.; 2098

perithec.is immersis subovoideis, ostiolis conoideis acutis prominentibus, atris; ascis cylindraceo-clavatis, apice rotundato-obtusis, longe stipitatis, p. sporif. 20-25 × 3-3,5; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, atris 3-3,5 × 2,5-3.

Hab. ad terram, Saharampur-Garden Indiæ orient.

5. **Xylaria paraensis** P. Henn. Fungi paraenses II, in Hedw. 1902, 2099
p. 17. — Stromatibus clavatis, longe stipitatis, alutaceo-ferrugineis, pruinosis, 4-5 cm. altis; stipite subtereti, basi discoideo 2-3 cm. longo, 1-1,5 mm. cr.; clavula subcylindraceo-compressa, obtusa, 2-3 cm. longa, 3-5 mm. lata, alutacea, rimosa, sicca longitudinaliter sulcata, subinvoluta, intus pallida; peritheciis immersis, subglobosis v. ovoideis, atro-carbonaceis, apice obtuse rotundatis, basi attenuato-stipitatis p. sp. 120-140 × 8-10; paraphysibus filiformibus 2-3 μ. cr.; sporidiis monostichis oblonge ellipsoideis utrinque obtusis, rectis v. curvulis, atris 18-22 × 5-7.

Hab. in ligno putri, Pará Amer. austr.

6. **Xylaria Huberiana** P. Henn. Fungi paraenses II, in Hedw. 1902, 2100
p. 17. — Cæspitosa; stromatibus conidiophoris erectis, simplicibus, subulatis v. ramosis 1-1,5 cm. altis, rugulosis, ramulis compressis, subulatis; stromatibus perithecigeris clavatis, stipite brevi, rugoso levi, usque ad 5 mm. longo, 1-1,5 cm. cr., atro; clavulis oblonge ovoideis, compressis, apice obtusis vel acutiusculis; tuberculato-verrucosis, ca. 5-10 mm. long., 4-5 mm. latis; peritheciis immersis, subglobosis; ascis cylindraceis, pedicellatis; octosporis oblique monostichis, oblongis inæquilateralibus, utrinque obtusis v. acutiusculis, 20-30 × 6-10, atris.

Hab. in ligno putri, Pará Amer austr.

7. **Xylaria grammica** Mont. — Syll. I, p. 317. — var. **blumenavica** 2101
P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 15. — Stromatibus usque 20 cm. longis; stipite circa 4 cm. longo; ascis 75-80 × 4-5, stipite 15-20 μ. longo; sporidiis 10-12 × 4.

Hab. in lignis, St. Catharina Brasiliæ austr.

8. **Xylaria coccinea** P. Henn. Hedw. 1904, p. 89. — Stromatibus 2102
subclavatis, subpedicellatis, apice obtuse rotundatis, interdum longitudinaliter sulcatis, amœne coccineo- vel sanguineo-corticatis, subnitentibus, ostiolis punctiformibus subhemisphærico-prominulis, atris, intus atro-carbonaceis, 2-2,5 cm. longis, 4-7 mm. cr., stipite brevi subatro; peritheciis immersis subglobosis; ascis cylindraceis p. spor. ca. 70-100 × 5-6, octosporis, paraphysatis; sporidiis

monostichis oblonge fusoideis, inæquilateralibus, utrinque obtusis vel subacutis, atris 15-20 × 4-6.

Hab. in lignis putrescentibus, Macahé, Rio de Janeiro Brasiliæ.

9. **Xylaria brevipes** Starb. Ascom. Regnell. exped. II, 1901, pag. 16, fig. 22-23. — Stromatibus cæspitosis, simplicibus vel bifurcatis; clavulis cylindraceis interdum compressis, longitudinaliter medio plicatis; peritheciis prominentibus sæpe sulcato-torulosis 1-3 cm. long., 1-3 mm. latis; stipite breviusculo tereti vel subcompresso, villosulo, basi bulboso pannoso; columella fragili, pallide brunnea; peritheciis globosis, majusculis 400-500 μ. diam., papillula erumpentibus; ascis fere resorptis; sporidiis octonis, monostichis, inæquilateralibus, utrinque obtusis, fuligineis, 9-11 × 5-6 2103

Hab. ad truncos dejectos, Buriti, Matto Grosso Brasiliæ. — Videtur affinis *Xyl. columniferæ* Mont.

10. **Xylaria reniformis** Starb. Ascom. Regnell. exped. II, 1901, p. 21, fig. 30. — Stromatibus subglobosis v. inferne applanatis, semiglobosis vel reniformibus, siccis collabentibus, demum rimosis, extus carbonaceis, medulla ochracea, sicca contracta, tabacino-violascenti, 15 mm. diam. vel 22-25 mm. lat., 12-15 mm. cr., 12-22 mm. alt.; stipite a clavula distincto, brevi, oblique fixo v. bifurcato, basi subdilatato, vix rugosulo, atrato, 4-6 × 2-3 mm.; peritheciis perifericis, monostichis, subglobosis, 300-500 μ. diam.; ostiolis punctiformibus, centro papillulatis, vix prominentibus, nigris; ascis cylindraceis, longiuscule pedicellatis apice rotundatis 140-160 × 8-12 p. spor.; sporidiis octonis, monostichis, fusoideis, utrinque acutiusculis, fuligineis, 25-30 × 6-10; paraphysibus filiformibus, ramulis, guttulatis. 2104

Hab. ad truncos, Buriti, Matto Grosso Brasiliæ. — Habitus *Penzigiam cranioidem* in memoriam revocat.

11. **Xylaria corrugata** Har. et Pat. Journ. de Bot. 1903, p. 13. — Valde polymorpha, sæpius in laminam applanatam superne latiorem basi cuneiformiter attenuata compressa, 3-5 cm. alta, 4 mm. cr., apice 2-4 cm. lat., nonnullis formis diversis sed semper compressis ludens; stipite recto, carbonaceo, subcylindrico, plus minus sulcato-rugoso, rufo-atro, statu juvenili tenuiter scruposo-villoso, dein glabriusculo, clava a stipite discreta, atra, corrugata, minute rugosa, ostiolis vix prominulis conspersa, intus farcta, albida; peritheciis immersis, globosis, atris; sporidiis subfusoideis, inæquilateris, 20 × 10. 2105

Hab. ad lignum emortuum, Men-Non Novæ-Caledoniæ (Bernier).

12. **Xylaria hemiglossa** Pat. in Bull. Soc. Mycol. 1902, pag. 301, t. XIV, fig. 1. — Simplex; stromate indurato, lignoso, brunneo-atro, sublanato, levi, ostiolis minutissimis sub lente punctato, intus albo, supra convexo perithecigeroque, infra marginato, margine obtuso involuto, subtus plano concavo sterili, primitus subhemisphærico dein lanceolato, apice obtuse acutato; stipite brevi, glabro, concolori, laterali, tuberculiformi; peritheciis immersis, confertis, monostichis, ovoideis, ostiolis vix exsertis; sporidiis brunneis 7-8 × 5, simplicibus, ovoideo-inæquilateralibus. 2106

Hab. ad truncos emortuos Novæ-Caledoniæ. — Inter *Xylariam* et *Hypoxylon* intermedia.

13. **Xylaria bertioides** Starb. Ascom. Regnell. exped. II, 1901, p. 16. fig. 20-21. — Stromatibus dense gregariis, sæpe inter se liberis, raro 2-pluribus connexis; stipite tenui vel robustiore difformi, sæpe compressiusculo 0,2-2 mm. long. 0,2-1, mm. cr., vulgo abrupte in clavulam transeunte, clavula valde versiformi ovoidea vel multangula, utrinque acutata, undique fertili, vix apice excepto, 0,5-4 × 0,2-3 mm., rufo-atrata stipiteque tuberculis polygonis, sæpissime sulcatis, 250-350 μ. diam., dense ornatis; peritheciis perpaucis, immersis, sphæroideis vix prominentibus; ascis cylindraceis, longiuscule pedicellatis, apice obtusis, p. spor. 65-75 × 6,5, octosporis; sporidiis monostichis discoideo-canaliculatis 9-11,5 × 6-1 × 1,5; paraphysibus guttulatis. 2107

Hab. ad corticem crassiorem, Buriti, Matto Grosso Brasiliæ. — *Bertiam moriformem* habitu æmulatur; *Xyl. vernicosæ* et *X. humili* proxime affinis.

2. *Xylocoryne.*

14. **Xylaria claviformis** Starb. Ascom. Regnell. exped. II, 1901, p. 17. — Stromatibus sessilibus vel brevissime stipitatis, clavatis vel ovoideis, primo teretiusculis, integris, dein e latere collabentibus, sæpe longitudinaliter medio rimosis, carbonaceo-fragilibus, extus fusco-nigris, villo fasciculatim tuberculoso, brevissimo, olivaceo fuscescente, præsertim basim versus vestitis, intus excavatis ochraceis 10-12 × 4-6 mm.; peritheciis omnino immersis, sphæroideis, lenticulariter emergentibus, 400-600 μ. diam., ostiolo 50-75 μ. 2108

diam , albido-farinoso; ascis jam resorptis; sporidiis ovoideis v. ovali-oblongatis, utrinque rotundatis vel acutulis, plerumque biguttatis, 9 × 4.

Hab. ad truncos, Buriti, Matto Grosso Brasiliæ. — *Xyl. cubensi* proxime affinis, sed potius e sect. *Xylocoryne*.

15. **Xylaria barbata** Starb. Ascom. Regnell. exped. II, 1901, p. 14, fig. 19. — Stromate ovato vel cylindraceo-clavato, utrinque obtuso vel fere applanato, pilis densis subinde fasciculatis, rigidis, parce septatis villosulo-rugosis, atratis; clavula 25 × 10 mm., stipite æquali, atro-velutino 40 × 2,5-3 mm. suffulta, extus carbonacea fragili; medulla ochracea laxissima; peritheciis peripheric is, monostichis, sphæroideis, immersis, conico-lenticulari-emergentibus, minute papillatis, maximis 0,5-1,5 mm. diam.; ascis cylindraceis, breviter pedicellatis, apice rotundatis 150-170 × 10-12; sporidiis octonis, monostichis, fusiformibus, rectis vel curvulis, utrinque acutiusculis, sæpe guttulatis, fuligineis 32-37 × 7,5-9; paraphysibus guttulatis, hyalinis, ascos superantibus. 2109

Hab. ad truncos, Colonia Ijui, Rio Grande do Sul Brasiliæ. — *Xyl. tigrinæ* affinis videtur.

16. **Xylaria similis** Starb. Ascom. Regnell. exped. II, 1901, pag. 23, fig. 33-34. — Stromatibus anguste cylindraceis v. basi vix crassioribus, interdum subtortuosis, rectiusculis, rugosiusculis, fusco-nigris inter areolas fuscescentibus, ex ostiolis minute asperulis, nitide nigris, punctulatis, 10-35 mm. long., 2-4 mm. cr.; stipite paullo dilutiore, adpresse fusco-villosulo, 5-17 mm. long., 2-3 mm. cr.; ascis linearibus, longiuscule pedicellatis, apice rotundatis, p. s. 56-70 × 6-7,5; sporidiis octonis oblique monostichis, ovoideo-ellipsoideis, utrinque acutiusculis, fuligineis 9 × 5; paraphysibus guttulatis ascos superantibus. 2110

Hab. ad truncos Coxipó, Mirim, Matto Grosso Brasiliæ. — *X. hispidulæ* et *X. Holmbergi* affinis.

17. **Xylaria californica** Earle in New York Bot. Gard. 1902, p. 347. — Gregaria vel subcæspitosa; stromatibus tenuibus, simplicibus erectis vel curvulis, 7 cm. long. vel plus, ad basim dense hirsutis 1,5 mm. crassis; setulis basalibus intense brunneis fere nigris; clavulis perithecigeris 2-2,5 cm. longis, et 2 mm. crassis; peritheciis 50 vel plus, prominentibus, subhemisphæricis, nigris, ostiolo papilla crassa prædito; ascis cylindraceis 75-85 × 7; sporidiis longitudinaliter monostichis, subinæquilateralibus, nigro-brunneis, 14 × 6; sporidiis fusiformibus, hyalinis, continuis 10-11 × 3. 2111

Hab. in ramis dejectis, terra immersis, Coast Range, S Mateo Californiæ.

18. **Xylaria argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 69. 2112
— Stromatibus sæpius cæspitosis, rarius solitariis 20-40 mm. alt., aterrimis; clavulis difformibus, typice ovatis vel elliptico-ovatis 8-20 mm. long., 5-10 mm. diam., sed non raro conoideis, globosis, leniter denseque subgranulato-colliculosis, fere ut fructus rubi, nigris sed sub luce refracta cærulescentibus, sæpe pulvere grumoso albido hinc inde laxe adspersis, apice acutis v. obtusissimis, basi abrupta cuneatis ac in stipitem 10-20 mm. long., 2-2,5 mm. cr. subiculo rigido, atro, pannoso, atro-olivaceo arcte vestitum productis, intus compactissimis, candidis, sublignosis; peritheciis globosis, prominulis, peripheriis 0,5-1 mm. diam.; ascis cylindraceis 10-11 μ. cr., cito diffluentibus; sporidiis monostichis, fusoideo-naviculari-bus, utrinque acutiusculis, 28-30 × 7-8, eguttulatis v. grosse 1-3-guttulatis, levibus.

Hab. ad ramos dejectos putrescentes prope Puerto Pampa in Argentina (E. Kermes).

19. **Xylaria violaceo-pannosa** Starb. Ascom. Regnell. exped. II, 1901, 2113
p. 24, fig. 27. — Stromatibus simplicibus, stipite curto ad basin pannoso, bulboso-conico, intus amœne violaceo v. atro-violaceo, extus fusco, cortice membranaceo, toto fragili vestito, 10-15 × 5-8 mm., clavula clavata, compressa, irregulariter undulato-plicata v. curvata, superne obtusa v. subtruncata, hinc inde verruculoso-rugosa v. villo (an reliquiæ st. conidiophori?) hyphis brevibus intricatis composito obsessa, peritheciis punctata, areolato-rimosa, contextu coriaceo-carbonaceo, atro-violaceo, 20-25 × 6-10 × 2-5 mm.; peritheciis monostichis, globulosis, 300-400 μ. diam., disculo atro medio papillato; ascis cylindraceis 80 × 6, stip. 25 μ. longo; sporidiis octonis monostichis, ellipsoideis, curvulis, utrinque obtusis, 10-11 × 5-5,5; paraphysibus filiformibus diffluentibus.

Hab. ad truncos, San Antonio pr. Asuncion, Paraguay (Lindman). — *Xyl. corniformi* et *X. Holmbergii* affinis, a prima colore, ab altera statura minore etc. dignoscenda.

20. **Xylaria Juniperus** Starb. Ascom. Regnell. exped. II, 1901, p. 19, 2114
fig. 27. — Stromatibus gregariis vel parce cæspitosis, simplicibus, rarius 2-3 fasciculatis sæpissime stipitatis; stipite 6 × 1-2 mm., rugosiusculo villoso, difformi, parte perithecigera undique fertili plerumque pileiformi a stipite discreta v. cylindraceo-ovata v. conico cupressiformi, cinereo-atrata, superficie undulata, extus carbonacea,

reticulatim rimosa, cortice pallide tabacino prædita, intus medulla ochraceo-albida, laxa. 1-1,5 mm. diam. v. 2-10 × 1-2,5; peritheciis monostichis immersis sphæroideis, ostiolis longiusculis per rimas corticis, leviter conico-prominulis, 200-500 μ. diam.; ascis cylindraceis, apice rotundatis longissime pedicellatis 76-82 × 6-8 p. sp.; sporidiis monostichis ellipsoideis, inæquilateralibus, vulgo utrinque acutiusculis bi- vel uniguttulatis, fuligineis, 12-15 × 5-6; paraphysibus confluentibus hyalinis.

Hab ad truncos putres, Mbopy et S. Antonio prope Asuncion Paraguay. — Affinis videtur *Xyl. cylindricæ*. — Var. **asperula** Starb. l. c. p. 20, fig. 28-29: stromatibus cylindraceis apice acutatis; stipite basin versus subdilatato, patenti-villoso. 10-15 mm. longo, 1,5 mm. cr., parte fertili 15-20 mm. long., 2-3 mm. cr.; peritheciis majoribus, sphæroideis, ostiolis conico-prominentibus; ascis p. sp. 84-100 × 8-9; sporidiis 15-18 × 6-7. Ad truncum putrescentem inter Bambusas, Mbopy et Paraguari Paraguay. — Præcipue ostiolis a typo dignoscitur.

3. *Xylodactyla.*

21. **Xylaria Longiana** Rehm, Ann. Mycol. 1904, pag. 175, Ellis et Everh. F. Columb. n. 1417, sub *X. Hypoxylon*. — Stromatibus solitariis, plerumque gregarie in ligno denigrato nidulantibus, subcylindraceis, rectis, 3-3,5 cm. longis, 2-4 mm latis, sensim in stipitem cylindraceum, versus basim dilatatum ibique interdum villo fusco vestitum, ca. 5 mm. long, 2-3 mm. latum abeuntibus, ad apicem usque 3 mm. longe acutum sterilibus, longitudinaliter rugosiusculis, fusco-nigris, glabris, peritheciis globosis 0.4 mm. diam., prominentibus exasperatis ibique ostiolis conicis obtusis perspicuis obtusis; ascis cylindraceis, longissimis, pr. sporif. ca. 70 × 6-7, octosporis; sporidiis ellipsoideis, plus minusve acutiusculis, rectis vel subcurvatis, 1-cellularibus, fuscis 8-9 × 4, monostichis; paraphysibus filiformibus. 2115

Hab. ad lignum Quercus, Texas Amer. bor. (Long). — Exemplaria secundum formam stromatis et magnitudinem sporarum bene cum *Xylaria simili* Starb. conveniunt, sed Starbäck hanc speciem ad subgenus *Xylocoryne* ponit, dum nostra exemplaria apice sterili stromatis, non minus ostiolis peritheciorum valde prominentibus divergunt. Sporidia *X. cupressiformis* Berk. Sacc. multo majora sunt (Rehm l. c.).

22. **Xylaria deserticola** Speg. Myc. argent. ser. II, 1902, p. 70. — 2116
Stromatibus atris, 15-50 cm. long., 2-3 mm. cr., profunde terra infossis, dense ramoso-cæspitosis, ramis subgracilibus corrugatis ramulosis ac plus minusve anastomosantibus superficiem soli attingentibus atque clavuligeris, intus candidis; clavulis ad apicem ramulorum sæpius ternatis subcylindraceis 5–10 mm. long., 4 mm. diam., varie compressis ac inter se confluentibus, rugulosis, nigris, in acumine albidis, intus subsuberosis albis; peritheciis globosis, dense constipatis immersis 0,50-0,75 mm. diam., atris; ascis cylindraceis p. spor. 100-120 × 6-10, ped. 60-80 × 5–8, sursum subtruncatis, deorsum longe attenuato-pedicellatis, aparaphysatis vel paraphysibus vix ullis ornatis; sporidiis navicularibus sæpius monostichis, utrinque subacutiusculis, 16–18 × 5–6, levibus non v. grosse 1-2-guttulatis, olivaceis.

Hab. ex fissuris soli exsurgens, e radicibus certe oriunda, in Sierra de los Himanes, S. Juan, in Argentina. — Species *X. fasciculatæ* Speg. et *X. digitatæ* (L.) Gr. certe affinis, habitu tamen longe recedens.

23. **Xylaria subtrachelina** P. Henn. Fungi S. Paulenses III, p. 207. 2117
— Stromatibus fusoideis, stipitatis 1 $^1/_2$–4 cm. long., 1-2 mm. crass., tuberculoso-rugosis, submoniliformibus, striatulis, atris, apice subacutis; stipite subtereti compresso pruinoso, vix tomentoso, 3-15 mm. longo, $^1/_2$ mm. crasso; peritheciis globosis immersis, ostiolis punctiformibus; ascis cylindraceis, stipitatis, ca. 100-110, p. sp. 60-70 × 4–5, paraphysibus copiosis filiformibus; sporidiis oblique monostichis, navicularibus, obtusis, atris 8-10 × 3 $^1/_2$-4 $^1/_2$.

Hab. ad truncos putres, Serra da Cantareira Brasiliæ. — *Xyl. trachelinæ* proxime affinis.

24. **Xylaria varians** Penz. et Sacc. in Malpighia 1902, pag. 225 et 2118
Icon. fung. Jav. t. XXII, f. 2. — Stromate cylindraceo, modo simplici, modo bifido, aterrimo; stipite plus minus longo, villosulo, cylindraceo; clava pariter cylindracea, sed paullo crassiore, 4–5 cm. longa, 4-5 mm. crassa, intus fistulosa, glabra, apice rotundata breviterque sed acute mucronata; peritheciis immersis, majusculis, usque 800-900 μ. diam., ostiolis conicis parum exstantibus; ascis cylindraceis deorsum sensim tenuatis, 110-130 × 5-6, octosporis; sporidiis monostichis, navicularibus, inæquilateris 10-13 × 4-5, utrinque obtusulis, fuligineis, ut plurimum bi-guttulatis.

Hab. ad truncos, Tjibodas, in insula Java (Fleischer). — Spectat ad sect. *Xylodactyla* et forte accedit ad *X. dichotomam.*

25. **Xylaria consociata** Starb. Ascom. Regnell. exped. II, 1901, p. 17, 2119
fig. 24. — Stromatibus dense cæspitosis 5-7 basi pannosa conjunctis, raro solitariis, stipitibus simplicibus vel sæpe bipartitis, lineari-compressis, deorsum rugoso-hirtellis, sursum glabrescentibus 1-3 cm. long., 1-2 mm. lat., vix 300-500 μ. crassis, sensim in clavulas transeuntibus; clavulis simplicibus, sæpius vero bifurcatis, hinc vel utrinque medio canaliculatis, 1-2 cm. longis, 1-5 mm. latis, 0,5-1,5 mm. crassis; ramulis divergentibus, apiculatis vel truncatis; receptaculo levi, rimuloso, fusco, deinde peritheciis prominentibus tuberculato, apice sterili; peritheciis sphærico-mammiformibus, papillulatis 750 μ. diam.; ascis cylindraceis, pedicellatis 55-65 × 6-7; sporidiis monostichis elliptico-navicularibus, fuligineis 9-10 × 4-5; paraphysibus indistinctis.

Hab. ad truncos Santa Anna da Chapada, Matto Grosso Brasiliæ. 2120

26. **Xylaria æmulans** Starb. Ascom. Regnell. exped. II, 1901, p. 13, fig. 16-18. — Stromatibus gregariis vel 2-pluribus connato-confluentibus, subsessilibus, basi spongioso-velutinis, simplicibus vel furcatis, compresso-cylindricis v. clavulatis v. difformibus, sæpius utrinque acutatis, ubique fertilibus v. apice acuminato sterilibus, rugosissimis, ex ostiolis asperulis, carbonaceo-coriaceis, fusco-atris, intus albidis, 10-20 mm. long. 1,5-4 mm. cr.; peritheciis sphæroideis, late conico-prominentibus, papillulatis, 400-600 μ. diam.; ascis cylindraceis, longiuscule pedicellatis, apice obtusis, parte sporif. 55-57 × 6-6,5, octosporis; sporidiis monostichis, ovoideis vel ellipsoideo-navicularibus, utrinque acutulis 6-7,5 × 4-5; paraphysibus ramulosis hyalinis.

Hab. ad truncos mucidos dejectos, Cujabá, Matto Grosso Brasiliæ. — *Xyl. multiplici*, *Xyl. Hypoxylo* et *X. massulæ* affinis videtur.

27. **Xylaria amazonica** P. Henn. Fungi Amaz. II, p. 261, cum icone 2121
(Hedwigia 1904). — Stromatibus erectis, stipitatis 4-7 cm. longis, stipite subtereti, flexuoso, æquali, 3-5 cm. longo, 1-1 ½ mm. crasso, atro-ferrugineo, pruinosó; clavula cylindracea obtusa vel rostrata ½-2 cm. longa, 3-4 mm. crassa, subrugulosa; peritheciis immersis, papillato-ostiolatis, subglobosis vel ovoideis, ca. 0,5-1 mm. diam.; ascis cylindraceo-clavatis, 8-sporis, paraphysibus filiformibus, hyalinis; sporidiis oblonge navicularibus, utrinque obtusis vel subacutis, atris, 2-guttulatis 20-30 × 7-9.

Hab. in ligno putri Cachoeiras des Marmellos Amazoniæ. — *X. trachelinæ* affinis, sed sporidia multo majora.

28. **Xylaria gracillima** (Mont.) Fr. — Syll. I, p. 343. — var. **rhizomorphoidea** P. Henn. Fungi S. Paulenses III, p. 207 (Hedw. 1904). — Stromate filiformi, rhizomorphoideo, ramoso, nigro, usque 7 cm. longo; peritheciis liberis ovoideis, seriatis vel varie congregatis, sessilibus, $^1/_2$-1 mm. cr. nigris rugulosis, papillatis; ascis 60-70 × 4,5-5,5 p. sporif., longe stipitatis; sporidiis monostichis oblongis, inæquilateris, obtusis, atro-brunneis 8-12 × 3,5-4,5. 2122

Hab. ad fructus Lecythidis, Serra da Cantareira Brasiliæ.

29. **Xylaria subgracillima** P. Henn. Fungi Amaz. II, p. 262, cum icone. — Stromatibus gregariis, erectis, stipitato-clavatis, 1-2 cm. longis, stipite subflexuoso, compresso, sulcato, atro-fusco pruinoso, 5-10 mm. longo, 0,7-0,9 mm. crasso; clavula spiciformi interrupte verrucosa, apice interdum acutiuscula 5-15 mm. longa, 1-1 $^1/_2$ mm. crassa; peritheciis subliberis plus minus aggregatis, ovoideis vel subglobosis, atris, pruinosis, papillato-ostiolatis, ca. 1 mm. diam.; ascis cylindraceo-clavatis, obtuse rotundatis, 8-sporis, stipitatis, 60-85 × 4, paraphysatis; sporidiis oblique monostichis, ellipsoideo-navicularibus, atris, 6-8 × 3-3 $^1/_2$. 2123

Hab. ad truncos putres, Marmellos, Rio Madeira Amazoniæ. — *X. gracillimæ* proxime affinis, sed sporidiis minoribus et peritheciis majoribus diversa.

30. **Xylaria juruensis** P. Henn. Fungi Amaz. II, p. 262, cum icone (Hedwigia 1904). — Stromatibus subcæspitosis, erectis simplicibus v. furcatis, 1 $^1/_2$-4 cm. longis, stipite subflexuoso, subtereti vel compresso, atro-tomentoso, 1-2 cm. longo, 1-2 mm. crasso; clavula interrupte perithecigera 1-2 cm. longa; peritheciis sparsis vel aggregatis, subliberis, subovoideis v. hemisphæricis, atris subrugulosis, papillato-ostiolatis, 0,7-0,9 mm. diam.; ascis cylindraceis, apice obtusis, plus minus stipitatis, 8-sporis, 100-120 × 4-6; sporidiis oblonge navicularibus, utrinque subobtusis, atro-castaneis, 12-17 × 4-5. 2124

Hab. ad stipites Palmarum Rio Juruá, Juruá-Miry Amazoniæ. — Affinis *X. Apeibæ* sed sporidiis ceterisque notis diversa.

31. **Xylaria delicatula** Starb. Ascom. Regnell. exped. II, 1901, p. 18, fig. 25-26. — Stromatibus primo conidiophoris, filiformibus, levibus vel basi sparse pilosis, nigris, circum circa basidiis hyalinis horizontalibus, conidia hyalina ellipsoidea 5-6 × 1-1,5 gerentibus, obtectis, 10-20 mm. alt., 100 μ. cr., deinde infra apicem incrassatis, perithecigeris, clavula ovato-sphæroidea, ostiolis nigris asperulata 1-2 mm. diam. vel 2-3 × 1 mm., corneo-carbonacea; peritheciis 2125

sphæroideis monostichis, late conico-prominentibus, acutiuscule papillulatis 200-300 μ. diam.; ascis cylindraceis, longiuscule pedicellatis, apice obtusis p. spor. 70-72 × 9 octosporis; sporidiis monostichis, ellipsoideo-navicularibus, utrinque acutiusculis, vulgo guttulatis, fuligineis 12-12,5 × 7-7,5; paraphysibus filiformibus, hyalinis, ascos superantibus.

Hab. ad folia putrida Cuyaba, Matto Grosso Brasiliæ. — *Xyl. aristatæ* proxime affinis. Stipes a basi ad medium patenti-villoso nigricante, a medio ad capitulum albo-villoso, 6-15 mm. long., 200-300 μ. cr.

32. **Xylaria procera** Starb. Ascom. Regnell. exp. II, 1901, p. 24, f. 39. 2126
— Stromatibus e basi villoso-velutina subbulbiformi v. fere sclerotiacea solitariis v. deorsum subconfluentibus, simplicibus v. partitis, basim versus cylindraceis v. angulatis, ceterum complanatis, plicato-rugosis, sursum applanatis, levibus, *Celosiæ* instar margine arcuato-undulatis, inferius fuscescentibus, superne griseo-albescentibus, marginem versus lutescentibus, contextu coriaceo-corneo, 4 cm. longis, 1,5 cm. latis, 2-5 mm. crassis; conidiis (basidiis?) claviformibus, hyalinis, 10-15 × 4-5.

Hab. ad truncos, Porto Alegre Rio Grande do Sul Brasiliæ. — Status conidicus tantum notus, hinc species incerta.

33. **Xylaria ramuligera** Starb. Ascom. Regnell. exped. II, 1901, p. 25, 2127
fig. 40. — Stromatibus e basi subincrassata solitariis; stipite simplici, atro, velutino v. patenti-villoso, parte fertili ramulis curtis interdum subuncinatis, solitariis v. fasciculatim conjunctis v. irregulariter multifidis ornata; hymenio columellam obscuram colore griseo-albicante vestiente, 1-2 cm. long., 1-2 mm. cr., contextu coriaceo-fragili; conidiis fusoideo-clavatis, hyalinis, 6-9 × 2-4.

Hab. ad truncum humi jacentem putrem, Colon. Ijuhy Rio grande do Sul Brasiliæ. — Status conidicus tantum notus, ideo species dubia.

34. **Xylaria confusa** Starb. Ascom. Regnell. exped. II, 1901, p. 24, 2128
fig. 38. — Stromatibus e basi scutellato-dilatata solitariis v. nonnullis divergentibus, filiformibus, interdum simplicibus plerumque monopodii modo ramuligeris, ramulis horizontalibus v. eleganter arcuatis acutissimis, interdum uncinatim acuminatis, usque 3 cm. long., 0,3 mm. lat., contextu ex hyphis agglutinatis formato; basidiis claviformibus conidiophoris ex hyphis exeuntibus, 25-35 × 10-12; conidiis piriformibus, hyalinis, 12 × 6.

Hab. in culmis Bambusæ, Colon. Ijuhy Rio Grande do Sul Brasiliæ. — Peritheciis deficientibus, species omnino dubia,

4. *Thamnomyces.*

35. **Xylaria trichopoda** Penz. et Sacc. in Malpighia 1901, p. 226, Ic. fung. Jav. t. XXII, f. 4. — Sparsa v. subgregaria; stromate erecto, anguste cylindraceo, simplici vel parce dichotomo-ramoso, nigerrimo, 3-5 cm. longo, basi 1-1,5 mm. cr., sursum conspicue attenuato, acuto, glabro, basim versus strigoso-hispido, filamentis aterrimis, 1 mm. long., ex hyphis conglutinatis compositis; peritheciis liberis, globosis, inæqualiter per totam fere stromatis longitudinem insertis, 0,7-1 mm. diam., intermixtis minoribus, minute sed distincte papillatis, carbonaceis, nigris; ascis cylindraceis, apice obtusulis, octosporis, longe stipitatis 150-160 × 5; stipite partem sporiferam subæquante; sporidiis oblique monostichis, fusoideo-navicularibus, utrinque obtusulis, 12-13,5 × 5, fuligineis. 2129

Hab. ad corticem arborum, Tijbodas, in insula Java (M. Fleischer). — Forte affinis *X. hispidissimæ,* sed certe diversa.

36. **Xylaria rostrata** (Mont.) Sacc. — Syll. I p. 344. — var. **tenuior** P. Henn. F. Amaz. II, p. 263 (Hedw. 1904). — Stromatibus multo tenuioribus, vulgo tantum basi ramosis, ca. 20 cm. long., ramis vix 1 mm. cr.; peritheciis minutis breviter rostratis, raro erostratis; sporidiis oblongo-navicularibus, 6-8 × 3-3,5. 2130

Hab. ad truncos putres, typus in Rio Juruá, Juruá-Miry et var. in Rio Negro, Manaos Brasiliæ. — Observante cl. Hennings l. c., cui assentior, genus *Thamnomyces* Ehrenb. cum typica specie *Th. Chamissonis* et *Th. camerunensi* est servandum. *Thamn. rostratus* ob perithecia rostellata et habitum scopiformem ut *Thamnomycetis* sectio propria (*Scopimyces* P. Hennings) considerari potest. Revisio critica generis vere exoptata.

37. **Xylaria camerunensis** P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. Ita vocandus *Thamnomyces Chamissonis* Ehr. var. *camerunensis* P. Henn. — Syll. XI, p. 285 sub *Xylaria.* 2131

STILBOHYPOXYLON P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 16 (Etym. *Stilbum* et *Hypoxylon*). — Stroma subcarbonaceum, atrum, hypoxyloideum, subglobosum. Perithecia pauca, immersa, membranacea, pallida. Asci cylindracei immaturi. Stroma conidiophorum liberum v. stromate ascophoro insertum, subulatum

apice mucoso-capitatum. Conidia acrogena, subglobosa, fuscidula. Asci ignoti, ergo genus, quoad locum systematicum, dubium.

1. **Stilbohypoxylon Mölleri** P. Henn. l. c. — Lignicola; stromatibus 2132
subcarbonaceo-atris, erumpenti-superficialibus, sparsis v. gregariis, subgloboso-pulvinatis, ruguloso-verrucosis, ca. 1 mm. diam., interdum confluentibus; peritheciis subglobosis, membranaceis pallidis; ascis cylindraceis subclavatis v. subfusoideis, basi attenuatis; paraphysibus copiosis filiformibus, hyalinis; sporidiis immaturis. – Stromatibus conidiophoris singularibus liberis v. stromatibus ascophoris lateraliter v. apice insertis, subulatis, atris, ex hyphis fuscis compositis, 0,8-1,2 mm. longis, basi incrassatis, 300-400 µ. cr., medio ca. 120 µ. cr., apice subclavatis 150–130 ab hyphis subhyalinis parallelis circumdatis; conidiis acrogenis subellipsoideis 3 ≈ 2,5 fuscidulis, levibus.

Hab. in truncis emortuis, S. Catharina Brasiliæ austr.

MÖLLEROCLAVUS P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 15 (Etym. a cl. bot. *Möller* et *clavus*). — Stroma conidiophorum subcarnosum, elongato-fusiforme, lateraliter ramosum, ramuli breves apice capitati, capitulum ex hyphis radiantibus fuscidulis compositum. Conidia acrogena, ellipsoidea, continua. Stroma ascophorum subcarnosum, atro-corticatum, subclavatum. Perithecia immersa, subglobosa, immatura; hinc genus, quoad locum systematicum, dubium, sed certe *Xylariæ* cognatum.

1. **Mölleroclavus Penicilliopsis** P. Henn. Fungi blumenavienses II, in 2133
Hedw. 1902, p. 15. — Lignicola; stromatibus conidiophoris subcarnosis, subulatis usque ad 6 cm. altis, stipitatis; stipite subtereti, atro-pruinoso v. tomentosulo, usque ad 2 cm. longo, 2 mm. crasso, clavulis pallidis, irregulare sulcatis, lateraliter circumdato-ramosis, ca. 5 mm. cr., apice attenuatis, ramulis brevibus, aggregatis vel sparsis, ca. 1-2 mm. longis, 0,5 mm. cr., pallidis, apice pulvinato-capitatis, capitulis atris 3,5-4 mm. latis, ex hyphis radiantibus, septatis, fuscidulis, apice 1-sterigmaticis breve subulatis; conidiis subfusoideo-ellipsoideis, fuscidulis, 6-8 ≈ 3,5-4; stromatibus ascophoris subcarnosis, fusoideo-clavatis, sigmoideis usque ad 11 cm. longis, atro-corticatis, intus pallidis, cavis; stipite subtereti, usque ad 8 mm. cr., pruinoso v. ferrugineo-tomentoso; clavula apice attenuata acutiuscula v. obtusa, medio usque ad 25 mm. diam., compressa, punctato-verrucosa; peritheciis immersis, sparsis, subglobosis, atris, immaturis.

Hab. ad ligna putrescentia, dejecta pr. Blumenau, St. Catharina Brasiliæ (Möller).

ANTHOSTOMA Nits. — Syll. I p. 293, IX p. 514, XI p. 283, XIV p. 503, XVI p. 441.

1. **Anthostoma gallicum** Sacc et Flag. in Atti congr. bot. di Palermo 1902, p. 50. — Peritheciis modo in acervulos parvos approximatis, modo subsolitariis, ligno infuscato v. atrato immersis, globosis, nigris, 800-900 μ. diam., interdum, matrice dilabente, subliberatis, membranaceo-carbonaceis; ostiolo emergente, rotundato, crassiusculo; ascis cylindraceis, apice rotundatis, brevissime crasseque stipitatis, 140-160 × 16, octosporis, filiformi-paraphysatis; sporidiis oblique vel subrecte monostichis, ellipsoideis, 30-36 × 14-15, continuis, atro-fuligineis, eguttulatis. 2134

Hab. in ligno carioso quercino, Rigny s. Arroux Galliæ. — Affine *A. veneto* sed omnibus partibus majus.

Sect. 4. Hyalodidymæ.

SPHÆRELLA Ces. et De Not. *) — Syll. I p. 476, IX p. 611, XI p. 295, XIV p. 525, XVI p. 468.

1. **Sphærella Fendleri** (Tr. et Earle) Sacc. et Syd. — Syll. XVI, p. 1133, *Mycosphærella Fendleri* Tracy et Earle, Plantæ Baker. I, p. 33. — Peritheciis minutis, sparsis, solitariis suberumpentibus; ascis oblongis, breve stipitatis 40-45 × 10-12; paraphysibus nullis; sporidiis fusiformibus, obtusis, 1-septatis, hyalinis, leviter constrictis 15-17 × 3,5-4. 2135

Hab. in caulibus Thalictri Fendleri, Bob Creek, Colorado Amer. bor.

2. **Sphærella delphiniicola** (Earle) Syd. et Sacc. — Syll. XVI, p. 1133, *Mycosphærella delphiniicola* Earle, Plantæ Bakerianæ, fasc. II, fung. p. 19. — Maculis irregularibus nigrescentibus; peritheciis gregariis, fere sphæricis, nigris, 100-150 μ. diam., in mycelio irregulariter ramoso insidentibus ostiolis inconspicuis; ascis aparaphysatis, clavatis, fasciculatis, 40-60 × 6-8; sporidiis distichis, fere ovalibus, utrinque acutis, 1-septatis, non constrictis, 12 × 3, hyalinis. 2136

*) Quoad nomen *Sphærella* loco *Mycosphærellæ*, cfr. Syll. XVI, p. 468, nota.

Hab. in caulibus emortuis Delphinii, Pagosa Peak, South Colorado, Amer. bor.

3. **Sphærella Actææ** E. Rostr. Norske Ascom. 1904, p. 21 (Vidensk. Skrift.) — Peritheciis dense gregariis, minutis, sphæroideis; ascis clavatis, 38-40 × 9; sporidiis distichis, subnaviculariis, 15-16 × 5. 2137

Hab. in caulibus siccis Actææ spicatæ in Norvegia.

4. **Sphærella Pericopsidis** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Pericopsidis* P. Henn. Fungi S. Paulenses I, in Hedw. 1902, p. 109. — Maculis fuscis, effusis; peritheciis hypophyllis, erumpenti-superficialibus, hemisphæricis, membranaceis, fuscis, minutis, 50-70 μ. diam., apice pertusis; ascis basi fasciculatis, clavatis, apice rotundatis, rectis vel curvulis, octosporis, aparaphysatis 25-32 × 4-5; sporidiis subdistichis, ellipsoideis vel clavatis, medio 1-septatis, haud constrictis, 6-8 × 3,5 hyalinis. 2138

Hab. in foliis Pericopsidis Monianæ in horto botanico, S. Paulo Brasiliæ.

5. **Sphærella elatior** Sacc. et Sp. — Syll. fung. I, pag. 495, Fungi ital. t. 386. — var. **apula** Sacc. et D. Sacc. — A typo distinguitur maculis foliorum distinctis, albicantibus, anguste ochraceo-marginatis, amplis irregularibus; peritheciis sæpius gregariis; cetera eadem. 2139

Hab. in foliis subvivis Magnoliæ grandifloræ, Foggia Apuliæ (Prof. Stragapede).

6. **Sphærella Œrteliana** Sacc. Ann. Mycol. 1904, p. 528. — Peritheciis hinc inde in greges minutos densiuscule approximatis, punctiformibus, epidermide velatis, nigris, poro pertusis, 80 μ. diam., contextu minute parenchymatico; ascis anguste tereti-clavulatis, breviter noduloso-stipitatis, 32-35 × 6, aparaphysatis, octosporis; sporidiis oblique monostichis v. distichis, anguste cylindraceo-clavulatis, 7-9 × 1,6-2, medio septatis vix constrictis, eguttulatis, hyalinis. 2140

Hab. in caulibus emortuis Coronillæ montanæ pr. Sondershausen Thuringiæ. — Ab affini *Sph. leptasca* Auersw. differt peritheciis hinc inde confertis, sporidiis brevioribus, matrice alia etc.

7. **Sphærella mimosicola** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella mimosicola* P. Henn. Fungi Amaz. IV, in Hedw. XLIV. p. 62. — Maculis fuscis gregariis, rotundatis, minutis, sæpe confluentibus: peritheciis hypophyllis sparsis vel gregariis, primo immersis, dein erumpenti-subsuperficialibus, subglobosis, atris, membranaceis ca. 80-120 μ.; ascis fasciculatis, aparaphysatis, clavatis, apice 2141

obtusis subincrassatis, 8-sporis, 30-42 × 10-14 μ.; sporidiis subdistichis, oblongis vel subclavatis, rectis v. curvulis, medio 1-septatis haud constrictis, hyalinis 12-18 × $3^1/_2$-4.

Hab. in foliis Mimosæ asperatæ, Rio Juruá Brasiliæ.

8. **Sphærella Tamarindi** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Tamarindi* P. Henn. in Notizbl. des Königl. bot. Gartens u. Museum zu Berlin n. 30, 1903, pag. 240. — Maculis fuscidulis explanatis; peritheciis epiphyllis sparsis, immersis dein erumpentibus subglobosis, minutis, membranaceis, atris, poro pertusis, 60-90 μ. diametr.; ascis fasciculatis, aparaphysatis, clavatis, vertice rotundatis, crasse tunicatis, 8-sporis, 36-43 × 13-16; sporidiis subdistichis oblonge ellipsoideis v. ovoideis, utrinque rotundatis, sæpe 2-guttulatis, hyalinis, deinde medio 1-septatis, 8-13 × $3-4^1/_2$. 2142

Hab. in foliis Tamarindi indicæ, Dar-es-Salâm in Africa orient. germ. (Dr. Stuhlmann).

9. **Sphærella dryadicola** Rostrup, Fungi in Botany of the Faeröes 1901, part. I, p. 310. — Peritheciis epiphyllis, subgregariis, atris; ascis ovoideo-oblongis 30-40 × 7-9; sporidiis cylindraceis, 10-14 × 3-4 hyalinis, initio guttulatis, dein 1-septatis. 2143

Hab. in foliis Dryadis octopetalæ, Fuglö in insulis Faeröes Daniæ.

10. **Sphærella rubicola** Mc. Alp. Proc. Linn. Soc. New South Wales 1904, p. 126. — Maculis argenteo-griseis; peritheciis depresso-globosis, vix erumpentibus, sparsis, 140-190, poro latiusculo papillato pertusis; contextu membranaceo-atro-brunneo; ascis obclavatis, breve stipitatis, apice rotundatis, aparaphysatis, octosporis, 63-70 × 18-21; sporidiis vulgo biseriatis, cylindraceo-oblongis, hyalinis, intus minute granulosis, medio 1-septatis, non constrictis, utrinque rotundatis, 21 × 7, cellula superiori paullo latiori. 2144

Hab. in ramis adhuc viventibus Rubi parvifolii Arthur's Creek Vict. Australiæ.

11. **Sphærella Eugeniæ** (Rehm) Sacc. et D. Sacc. *Mycosphærella Eugeniæ* Rehm, Hedw. XLIV, (1905). — Maculis exsiccatis foliorum suborbicularibus, fuscidulis, fusco-purpureo marginatis, 3-4 mm. lat.; peritheciis gregarie innatis, in hypophyllo demum prominentibus, globosis, nigris, poro pertusis, glabris, 60-80 μ. diam.; ascis elongato-ovoideis, apice incrassatis 30-35 × 9, octosporis; sporidiis fusiformibus, medio septatis, hyalinis 15-17 × 2-2,5, tristichis; paraphysibus nullis. 2145

Hab. in foliis Eugeniæ Michelii, Blumenau Brasiliæ,

12. **Sphærella Cuboniana** D. Sacc. sp. n. — Peritheciis gregariis, sub- 2146
cutaneo-erumpentibus, globulosis, demum concaviusculis, nigris, rugulosis, 400-500 μ. diam., ostiolo punctiformi; ascis crasse obclavatis v subfusoideis, breviter crasse stipitatis, apice obtusule tenuatis, 50-80 × 15-24, aparaphysatis, octosporis; sporidiis in asci parte crassiore tristichis, oblongo-clavulatis, 20 × 7-8, e hyalino luteolis, utrinque obtusiusculis, 1-septatis, leniter constrictis, loculo superiore paullo crassiore.

Hab. in ramis languidis junioribus Vitis viniferæ in horto Musei agrarii Romæ, Jan. 1904. — Instituti phytopathologici romani eximio Directori Jos. Cuboni dicata species.

13. **Sphærella Goodeniæ** F. Tassi in Bull. Lab. Ort. Bot. Siena 1902, 2147
v. pag. 108. — Peritheciis sparsis vel laxe gregariis, epidermide tenuiter velatis, minutis, nitidulis, nigris, globoso-lenticularibus, 80-100 μ. diam., membranaceis, ostiolo minuto perforatis, hyphulis gracilibus septatis, fusco-olivaceis, sub epidermide repentibus, præditis; contextu dense fuligineo; ascis copiosis, stipatis, inæquilateralibus, uno latere recto, altero ventricoso, crasse tunicatis, subsessilibus 8-sporis, 30-32 × 12-14; sporidiis irregulariter confertis, raro subdistichis, ellipsoideis, medio 1-septatis, eguttatis, 7-8 × 2-3 hyalinis.

Hab. in ramulis emortuis Goodeniæ stelligeræ, Sydney Australiæ.

14. **Sphærella Parnassiæ** Rostr. Islands Svampe in Bot. Tidsskrift 2148
1903, vol. 25, p. 302. — Peritheciis laxe gregariis, sphæroideis, minutissimis 60-70 μ. latis; ascis fasciculatis, cylindraceo-clavatis, 30-33 × 5-6; sporidiis oblique distichis, oblongo-clavatis, prope medium septatis, ad septum vix constrictis, hyalinis, 10-12 × 3-4.

Hab. in caulibus et sepalis morientibus Parnassiæ palustris in Islandia.

15. **Sphærella Glycosmæ** (Tracy et Earle) Sacc. et D. Sacc. *Myco-* 2149
sphærella Glycosmæ Tracy et Earle, Plantæ Bakerianæ I p. 33. — Maculis nullis; perithecis dense sparsis, in latis areis, nigris, sphæricis, 100 μ. diam.; ascis sessilibus, late obovatis, obtusis, aparaphysatis, octosporis, 50 × 10; sporidiis anguste ovatis, 1-septatis, hyalinis, guttulatis, 16 × 5.

Hab. in caulibus emortuis Glycosmæ occidentalis, South Colorado Amer. bor.

16. **Sphærella Cassythæ** Mc. Alp. in Proc. Linn. Soc of N. S. Wales 2150
1903, p. 102. — Peritheciis minutis, punctiformibus, sparsis, ni-

gris, erumpentibus, membranaceis, depresso-globosis, 70-90 μ. diam.; ascis clavatis v. oblongo-clavatis, plus minusve pedicellatis, octosporis 32-37 × 9-12; sporidiis distichis, hyalinis, cylindraceis, utrinque subconicis, 1-septatis, ad septum non constrictis, guttulatis 9 × 3.

Hab. in caulibus et in ramulis Cassythæ glabellæ in Australia.

17. **Sphærella Persooniæ** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Persooniæ* P. Henn. in Hedw. 1903, p. (81). — Maculis fuscidulis, rotundatis vel irregularibus; perithecciis amphigenis epidermide erumpentibus, aggregatis, subgloboso-depressis, atris, vertice subpapillatis, porosis ca. 80-120 μ. diam.; ascis fasciculatis, clavatis, apice rotundato-tunicatis, 20-30 × 8-10, octosporis, aparaphysatis; sporidiis subclavatis, apice obtusis, medio 1-septatis, haud constrictis, hyalinis 8-11 × 2-2,5. 2151

Hab. in foliis Persooniæ salicinæ, in mt. Victoria, N. S. Wales Australiæ (Pritzel).

18. **Sphærella Silenis** (v. Höhn.) Sacc. et D. Sacc. *Mycosphærella Silenis* v. Höhn. in Ann. Mycol. I (1903) p. 523. — Maculicola, epi- et hypophylla; maculis minutis, $^1/_2$-1 mm. diam., numerosis, sparsis, ochraceis, late atro-purpureo-marginatis; perithecciis paucis, (usque 12), nigris, minutis, 48-80 μ. latis, sphæroideis, breve papillatis; tunica brunnea, membranacea, e cellulis minutis, 4-8 μ. latis formata; ascis clavatis 8-sporis, aparaphysatis 32-55 × 7-12; sporidiis distichis, hyalinis, didymis, oblongis, in medio non v. parum constrictis, plerumque 14 × 4, sed etiam longioribus, bacilliformibus, 20-28 × $3\,^1/_2$-$5\,^1/_2$, utrinque rotundatis. 2152

Hab. in foliis adhuc vivis et in calycibus Silenis inflatæ prope Tumpen in valle Oetzthal Tiroliæ.

19. **Sphærella Cerei** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Cerei* P. Henn. in Hedw. 1904, pag. 85. — Maculis cinereo-fuscidulis explanatis, irregularibus; perithecciis sparsis vel gregariis, innato superficialibus, globulosis, submembranaceo-atris, basi hyphis fuscidulis, septatis 2,5 × 3-5 μ. crassis circumdatis, 60-70 μ. diam.; ascis clavatis obtusis, octosporis, aparaphysatis, 30-40 × 12-15; sporidiis subdistichis vel subconglobatis, oblonge clavatis vel subfusoideis, obtusis, medio 1-septatis, constrictis, hyalinis 12-15 × 2,5-3. 2153

Hab. in phyllodiis Cerei macrogoni, Cabo Frio, Rio de Janeiro Brasiliæ (E. Ule).

20. **Sphærella Hertiæ** Pat. Champ. Algero-Tunis., in Bull. Soc. Myc. de France t. XVIII. 1902, fasc. I. — Maculis nullis; peritheciis sparsis, amphigenis, nigris, initio subepidermicis dein liberis, globulosis 100 μ. diam., poro pertusis; contextu celluloso viridi-fuligineo; ascis basi incrassatis, breve stipitatis, summo attenuato-obtusis, octosporis, 2-3-seriatis; paraphysibus nullis; sporidiis ovoideo-elongatis, 1-septatis, ad septa paullo constrictis, pluriguttulatis, hyalinis. 2154

Hab. in foliis emortuis Hertiæ cheirifoliæ, Sgag Algeriæ.

21. **Sphærella Columbariæ** (Feltg.) Sacc. et Syd. — Syll. XVI, p. 1133 (nomen) *Mycosphærella Columbariæ* Feltg. Vorst. Pilz. Luxemb. Nachtr. II, p. 182. — Peritheciis gregariis, subcutaneis, nigris; ascis cylindricis, basi stipitiformi attenuatis 40 × 5; sporidiis ellipsoideis vel ovato-ellipsoideis, bi-cellularibus, 7-8 × 2,5. 2155

Hab. in caule Scabiosæ Columbariæ, Luxemburg. — *Sphær. leptoascæ* Auersw. proxime affinis.

22. **Sphærella Coffeæ** (Noack) Sacc. *Mycosphærella Coffeæ* Noack Pflanzenkr. 1901, p. 200, tab. IV (absque diagnosi). — Maculis brunneis subrotundis, margine obscuriore subelevato; peritheciis gregariis, sæpius epiphyllis punctiformibus, atris, globulosis circ. 50 μ. diam., poro pertusis; ascis tereti-oblongis, breve crasse stipitatis, 22-25 × 6-7, apice rotundatis, aparaphysatis, octosporis; sporidiis irregulariter distichis, fusoideo-oblongis, constricto-1-septatis, 7-11 × 2-3, hyalinis, minute 4-6-guttulatis. 2156

Hab. in foliis Coffeæ arabicæ in Brasilia, socia plerumque *Cercospora coffeicola*

23. **Sphærella Puttemansii** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella Puttemansii* P. Henn. in Hedw. 1902, p. 301. — Maculis rotundatis 1,5-2 mm. diam., fuscidulis dein exaridis pallescentibus; peritheciis gregariis erumpentibus, subglobosis, atro-fuscis, dein collabentibus, membranacco-cellulosis; ascis fasciculatis, ovoideis, apice rotundatis, crasse tunicatis 8-sporis, 25-45 × 16-20; sporidiis clavatis v. subfusoideis, obtusis, medio 1-septatis, haud constrictis, hyalinis, 15-21 × 5-7. 2157

Hab. in foliis vivis Plantaginis, in horto botanico, S. Paulo Brasiliæ.

24. **Sphærella gaveensis** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella gaveensis* P. Henn. in Hedw. 1904, p. 84. — Maculis rotundatis, gregariis, atro-fuscis, ca. 1 mm. diam.; peritheciis innato-superficialibus, gregariis, membranaceis, hemisphæricis, atro-fuscis, ca. 2158

80–100 μ. diam.; ascis oblonge ovoideis vel clavatis, apice rotundatis, tunicatis, octosporis, 35–40 × 18–23; sporidiis subdistichis vel conglobatis, oblonge clavatis, medio 1-septatis vix constrictis, hyalinis, 18–22 × 6–7.

Hab. in foliis Plantaginis, Gavea, pr. Rio de Janeiro Brasiliæ (E. Ule).

25. **Sphærella implexicola** R. Maire in Bull. Soc. bot. de France 1901, 2159
t. I, p. 198, tab. 13, fig. 3. — Maculis fusco-atris, dein pallescentibus, amphigenis; peritheciis minutis, amphigenis, sparsis, immersis; ascis cylindraceo-oblongis v. clavatis, interdum curvulis, basi attenuatis, haud vel parum stipitatis 35–40 × 9-10; sporidiis distichis, hyalinis, fusoideis vel leguminiformibus 10–11 × 2,5 haud procul medio septatis, non constrictis, loculis guttulatis, sæpius inæqualibus; paraphysibus nullis.

Hab. in foliis languidis Loniceræ implexæ, Bonifacio Corsicæ.

26. **Sphærella Pentastemonis** (T. et E.) Sacc. et Syd. — Syll. XVI, 2160
p. 1133 (nomen) *Mycosphærella Pentastemonis* Tracy et Earle in Green Pl. Baker. II, p. 19. — Peritheciis densiuscule aggregatis in areis irregularibus nigrescentibus, nigris, fere sphæricis, 150–200 μ. diam. hyphis septatis, brunneis 10-12 μ. crassis circumdatis; ascis aparaphysatis, fasciculatis, clavatis, 60 × 12; sporidiis irregulariter distichis, ovatis, sæpe guttulatis, 1-septatis, constrictis, 25 × 6, hyalinis.

Hab. in foliis caulibusque emortuis Pentastemonis spec., Pagosa Peak, South Colorado Amer. bor.

27. **Sphærella Passifloræ** Rehm — Syll. XVI, pag. 470. — var. 2161
Bignoniæ Rehm, Hedw. XLIV (1905). — Peritheciis 70–90 μ. diam.; ascis piriformibus 25–30 × 10–12; sporidiis oblongis, medio septatis, utrinque rotundatis 9–10 × 3.

Hab. in foliis Bignoniæ, Sao Francisco Brasiliæ (Ule).

28. **Sphærella lineata** (Clements) Sacc. et D. Sacc. *Mycosphærium lineatum* 2162
Clem. in Bull. of the Torr. Bot. Cl. 1903, p. 84. — Peritheciis gregariis, in lineis longis vel maculis elongatis, elevatis, nigris dense dispositis, innatis, epidermide tectis, deindo suberumpentibus, conico-sphæricis, vix vel non papillatis, glabris, subiculo sparso brunneo insidentibus, minutis, 100 μ. diam.; ascis octosporis, clavatis, brevibus, aparaphysatis, jodo non cærulescentibus 60 × 12–15; sporidiis irregulariter dispositis, ovato-oblongatis, uniseptatis, hyalinis, levibus, intus minute granulosis, 16 × 6–8.

Hab. ad caules emortuos Pedicularis proceræ, Dark Cañon Amer. bor. — Est quasi *Sph. trichophila* Karst. sed nuda; *Sph. Tassianæ* DNot. quoque affinis.

29. **Sphærella Digitalis** T. Ferraris in Malpighia 1902, pag. 451. 2163
— Peritheciis minutis 150 μ. diam., dense gregariis, nigris, globosis, poro pertusis; ascis brevibus, basi brevissime stipitatis, 60 × 20-21; sporidiis subdistichis vel stipatis, hyalinis, medio uniseptatis, non constrictis, inferne attenuatis, 18-19 × 5-6.

Hab. in caulibus siccis Digitalis, luteæ, Courmayeur Italiæ bor.

30. **Sphærella Glechomæ** Sacc. et Flag. sp. nov. — Peritheciis hinc 2164
indo dense gregariis, amphigenis, sed sæpius epiphyllis, punctiformibus, 80-100 μ. diam., nigris, vix pertusis, epidermide diaphana velatis, leniter prominulis; ascis elongato-oblongis, apice attenuatis, aparaphysatis, octosporis, 30-40 × 7-8; sporidiis distichis, breve fusoideis, 10-12 × 3, apice obtusulis, 1-septatis, vix constrictis hyalinis.

Hab. in foliis putrescentibus totis decoloratis Glechomæ hederaceæ, Rigny sur Arroux (Saone et Loire) Galliæ. — Verisimiliter status ascophorus *Phyllostictæ Glechomæ*. Prima ætate forte maculicola.

31. **Sphærella subcongregata** Ell. et Ev. North Am. Pyrenomyc. 2165
p. 290. — Peritheciis gregariis v. interdum 3-6 congestis, erumpenti-superficialibus, ovoideo-globosis, 250 μ. diam., ostiolo acuto; ascis oblongis, 40-45 × 12-15, aparaphysatis; sporidiis biseriatis, oblongo-cylindraceis, v. clavato-oblongis, subhyalinis, dilutissime flavidis, 18-23 × 3-4 vel (in forma subclavata) usque 4-5 μ. cr.

Hab. in pedunculis Erigerontis salsuginosi Mt. Paddo, Washington Amer. bor.

32. **Sphærella Sabinæ** (Feltg.) Sacc. et D. Sacc. *Mycosphærella* Feltg. 2166
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 258. — Peritheciis gregariis vel subsparsis, erumpenti-subsuperficialibus, globoso-depressis, nigris, 70-150 μ. diam., imperspicue papillatis; ascis cylindraceis vel tereti-clavatis, aparaphysatis 40-60 × 4-5, 4-8-sporis; sporidiis submonostichis tereti-fusoideis, utrinque rotundatis, rectis, curvulisve, medio constricto-1-septatis, ex hyalino flaveolis, 13,5 × 2-2,5.

Hab. in ramulis Juniperi Sabinæ, Luxemburg.

33. **Sphærella Ulmi** (Kleb.) Sacc. et D. Sacc. *Mycosphærella Ulmi* Kleb. 2167
in Zeitschr. f. Pflanzenkrank. 1902, XII, pag. 257. — Peritheciis

solitariis subglobosis, circ. 100 μ. diam.; ascis elongato-clavatis 90 × 10 octosporis; sporidiis fusoideis, rectis curvulisve 28 × 2,5-4, medio 1-septatis, loculo altero subinde paullo crassiore.

Hab. in foliis languidis vel emortuis Ulmi montanæ var. pendulæ prope Hamburg Germaniæ sept.

34. **Sphærella salicina** Ell. et. Ev. in Journ. of Mycol. 1903, p. 166. 2168
— Peritheciis sparsis vel 3-5-congestis, ovatis, 250-350 μ. diam., immersis, dein superne erumpentibus; ascis oblongis. p. spor. 40-45 × 8-10; sporidiis distichis, oblongo-fusoideis, hyalinis vel subluteolis, 1-septatis, ad septum subconstrictis, 14-18 × 4-6.

Hab. in ramis juvenilibus Salicis cordatæ, Rooks Co. Cansas Amer. bor.

35. **Sphærella Grossulariæ** (Fr.) Auersw. — Syll I, p. 486. — var. 2169
salicella Sacc. et Scalia Harrim. Alaska Exped. Crypt. pag. 32, pl. IV, fig. 6. — Peritheciis sparsim gregariis, punctiformibus, 100-130 μ. diam.; ascis tereti-oblongis, 52-70 × 13-15,5 μ., brevissime stipitatis, octosporis; sporidiis polystichis, fusoideo-bacillaribus, rectis, 32-34 × 1,5-2,5, uniseptatis, non constrictis, hyalinis.

Hab. in foliis Salicis spec., socio *Phytismate salicino*, Kadiak Alaska (Trelease).

36. **Sphærella Flageoletiana** Sacc. et Trav. Atti Congr. bot. Palermo 2170
1902, p. 51. — Peritheciis epiphyllis, non maculicolis, hinc inde dense et late gregariis, punctiformibus, fere microscopicis, globulosis, immersis 65-80 μ. diam., tenuiter membranaceis, ostiolo obtuso vix prominulo; ascis fasciculatis, oblongo-fusoideis, apice obtusis, aparaphysatis, octosporis 45-50 × 7; sporidiis distichis cylindraceo-fusiformibus, plerumque curvatis, utrinque obtuse tenuatis, medio 1-septatis, non constrictis 22-26 × 3-3,5, intus nubilosis, hyalinis.

Hab. in foliis arescentibus Fagi silvaticæ, Rigny sur Arroux Galliæ. — Forma et longitudine sporidiorum mox distincta species.

37. **Sphærella cæspitosa** Ell. et Ev. in Journ. of Mycol. 1903, p. 166. 2171
— Hypophylla; peritheciis 65-75 μ. diam. subconfluenti-cæspitosis, 3-5 vel ultra congestis, cæspitulos 1-3 mm. diam. efformantibus, erumpentibus; ascis subcylindricis 35-40 × 5-6; sporidiis subdistichis, oblongo-fusoideis, 1-septatis, non constrictis, 8-10 × 2,5-3 hyalinis.

Hab. in foliis Quercus virginianæ, Meridan, Texas Amer. borealis.

38. **Sphærella garganica** Sacc., Ann. Mycol. 1903, p. 3, t. III, fig. II. 2172
— Peritheciis hypophyllis, hinc inde dense gregariis, punctiformibus, leviter prominulis, globulosis, 150-180 μ. diam., contextu duriusculo, parvi-celluloso, atro-fuligineo, poro minuto vix papillato, dein lacerato; ascis rosulatis, crasse clavatis, subsessilibus, apice obtuse rotundatis, 35-40 × 11-14, octosporis, aparaphysatis; sporidiis subtristichis, oblongis, sursum paullo crassioribus, utrinque obtusulis, 11-12 × 3-3,5, rarius usque 4 μ. cr., hyalinis, eguttulatis.

Hab. in foliis Smilacis asperæ var. mauritanicæ, pr. S. Nicandro Garganico (Foggia), Majo 1893 (U. Martelli).

39. **Sphærella smilacina** Ell. et Ev. Ita nuncupanda *Sphærella subcongregata* in Syll. IX, p. 651, quæ (ut ex errore transpositionis habetur) non est *Sph. subcongregata* Ell. et Ev. Cfr. supra, n. 31.

40. **Sphærella Yuccæ** Ell. et Ev. in Journ. of Mycol. 1902, p. 67. 2173
— Perithociis æqualiter sparsis, subcuticularibus, suberumpentibus plus minusve collapsis 110-120 μ. diam.; ascis clavato-cylindraceis, breve stipitatis 45-55 × 10-12; sporidiis distichis, oblongo-fusoideis 12-15 × 4-5, uniseptatis paullulo constrictis.

Hab. in foliis Yuccæ filamentosæ, Alabama Amer.

41. **Sphærella Schœnoprasi** Auersw. — Syll. fung. I, pag. 522. — 2174
var. **Romuleæ** Sacc. Ann. Mycol. 1904, p. 3. — Paullo minor; peritheciis conoideis, prominulis, 160-180 μ. diam.; ascis obclavatis, 50-60 × 14-15 μ.; sporidiis distichis v. oblique monostichis, breve fusoideis, utrinque obtusulis, 18-20 × 5-5,5 μ., ad septum non constrictis.

Hab. in foliis morientibus Romuleæ Bulbocodii, in agro Romano (Doct. A. Béguinot).

42. **Sphærella hypostomatica** (v. Höhn) Sacc. et D. Sacc. *Mycosphærella hypostomatica* v. Höhn Fragmente zur Mykologie 1903, p. 7. 2175
— Foliicola; maculis late linearibus, brunneis, obscurius marginatis, amphigenis; peritheciis parallele seriatis, hypophyllis, sub stomatibus nidulantibus, brunneis, sphæroideis, papillatis, ostiolatis, 60-85 μ. latis, prominulis; ascis oblongis vel clavatis, 22-45 × 7-11; paraphysibus nullis vel obsoletis; sporidiis lanceolatis utrinque attenuatis, polystichis, didymis, cellulis subæqualibus, hyalinis, 10-13 × 2,5-3.

Hab. in foliis vivis Luzulæ campestris vel albidæ in silvis vallis « Mauerbachthal » dictæ Wienerwald Austriæ inferioris.

43. **Sphærella leptospora** Sacc. et Scalia, Harrim. Alaska Exped. 2176
Crypt. p. 31, pl. IV, f. 7. — Peritheciis sparsis, globulosis, primo

immersis dein liberis, 220-275 μ. diam., poro pertusis, contextu parenchymatico, fuligineo; ascis cylindraceis, rectis vel curvulis, brevissime stipitatis, 50-60 × 7,5-9; sporidiis octonis, distichis, fusiformibus, rectis, medio 1-septatis, non constrictis, 13-15,5 × 2,5-3, hyalinis, sæpe guttulatis.

Hab. in foliis Caricis Mertensianæ, Yes Bay Alaska (Howell). — Affinis *S. perexiguæ*, sed perithecia multo ampliora, asci longiores et angustiores.

44. **Sphærella graminum** Sacc. et Scalia, Harrim. Alaska Exped. Crypt. 2177
p. 32, pl. IV, fig. 5. — Peritheciis sparsis, punctiformibus, 150-200 μ. diam., innato-prominulis, epidermide non atrata tectis, brevissime papillato-pertusis, contextu membranaceo-fuligineo, parenchymatico; ascis cylindraceis, subsessilibus, apice rotundatis, 65-70 × 10-12, rectiusculis, 8-sporis; sporidiis distichis, ellipticofusoideis, rectis, 13-16,5 × 3,5-4 μ., uniseptatis, non constrictis, plasmate granuloso v. minute guttulato-farctis, hyalinis.

Hab. in foliis emortuis Poæ stenanthæ, Shumagin Islands Alaska (Harrington). — Affinis *S. cruri-galli*, præcipue distinguenda peritheciis majusculis ratione fructificationis.

45. **Sphærella Anthistiriæ** Mc. Alp. Proc. Linn. Soc. of N. S. Wales, 2178
1903, p. 102. — Peritheciis minutis, nigris, punctiformibus, erumpentibus, gregariis, globosis, membranaceis, poro pertusis, 100-120 μ. diam., amphigenis; ascis oblongo-cylindraceis, subinflatis, basi constrictis, sessilibus, aparaphysatis, 35-45 × 17-21; sporidiis distichis vel irregulariter dispositis, hyalinis, oblongo-ellipticis, basi subconicis, 1-septatis, ad septum non constrictis 14-15 × 4-4,5.

Hab. in foliis vivis Anthistiriæ australis, Brighton et Leongatha Australiæ.

46. **Sphærella montellica** Sacc. sp. nova. — Peritheciis hinc inde 2179
gregariis, in pag. sup. magis distinctis, globoso-lenticularibus, punctiformibus, nigris, epidermide velatis leviterque prominulis, 70-80 μ. diam., poro pertusis, minute parenchymaticis; ascis sessilibus, obclavatis, basi rotundatis, sursum tenuatis, 38-40 × 6-7; sporidiis distichis cuneato-oblongis, minutis, bilocularibus, loculo sup. paullulo crassiore, ad septum non v. vix constrictis, 8 × 3, hyalinis, eguttulatis.

Hab. in foliis languidis v. emortuis Moliniæ cæruleæ, socio *Cladosporio graminum* var. *Moliniæ*, Montello (Treviso). — Ab affini *Sph. ignobili* differt peritheciis, ascis sporidiisque minoribus, prætereaque peritheciis hinc inde gregariis, nec sparsis.

47. **Sphærella panicicola** (P. Henn.) Sacc. et D. Sacc. *Mycosphærella panicicola* P. Henn. Fungi S. Paul. I, in Hedw. 1902, p. 1092. — Peritheciis epiphyllis, cæspitose striiformibus, erumpentibus, membranaceis, subglobosis, papillatis, atris, 120-150; ascis clavatis, obtusis, octosporis, aparaphysatis, 60-70 × 7-8; sporidiis distichis, fusoideis, curvulis, utrinque obtusiusculis, medio 1-septatis, haud v. paullo subconstrictis, 17-21 × 3,5-4, hyalinis. 2180

Hab. in foliis Panici spec., in horto botanico S. Paulo Brasiliæ.

48. **Sphærella Triseti** Speg. Myc. Argent. ser. II, 1902, p. 70. — Maculis nullis; peritheciis epidermide tectis, lenticularibus, glabris 120 μ. diam., minute ostiolato-papillulatis, atris; ascis obovato-saccatis, apice obtusissime rotundatis, basi abrupte cuneatis 70-80 × 20, crasse tunicatis, octosporis, aparaphysatis; sporidiis utrinque obtusis, medio valide constrictis, distichis 20-22 × 5-6 levibus, eguttulatis. 2181

Hab. ad folia emortua Triseti cujusdam, Rio Deseado, in Patagonia.

49. **Sphærella parasitica** Wint. — Syll. XI, p. 658. — var. **Tapesiæ** Feitg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 183. — Peritheciis gregariis subimmersis, globosis, papillatis, hyphulis brunneis cinctis, 45-80 μ. lat.; ascis subclavato-ovoideis 15-18 × 5-8, brevissime stipitatis octosporis, aparaphysatis; sporidiis ovoideo-clavatis, bi-tristichis, 1-septatis, constrictulis, 7-8 × 2-2,5 quadriguttulatis, ex hyalino-flaveolis. 2182

Hab. in disco Tapesiæ roseæ, Luxemburg.

PHARCIDIA Körb. Parerga p. 469 (1865) — Syll. IX, p. 676, XI p. 303 (excl. spp. hyalophragmiis), *Epicymatia* Fuck. (1869) — Syll. I, p. 570, XI, p. 303, XVI, p. 485. — Nostro sensu hoc genus est quasi *Sphærella* lichenicola et huc ducendæ *Pharcidiæ* species hyalodidymæ, jam descriptæ dum species hyalophragmiæ sub nomine *Pharcidiopsis* Sacc. militare poterunt.

1. **Pharcidia cupularis** Pat. in Bull. Soc. Mycol. 1902, p. 303: cfr. Hue Lichenes extra-europæi in Nov. Arch. du Museum, 4 ser. Mem. t. III, p. 62, tab. V, fig. 4 bis. — Peritheciis sparsis vel sæpius gregariis, nonnullis confluentibus, fere omnino superficialibus, nitentibus, atris, glaberrimis, globosis, sursum applanatis, minute papillato-ostiolatis, dein depresso-cupulatis 200-400 μ. latis, 200 μ. altis; ascis conglobatis, subclavatis, apice obtusis, deorsum 2183

attenuatis, crasse tunicatis, aparaphysatis, octosporis 50 × 8; sporidiis subdistichis, oblongis, utrinque attenuatis, medio 1-septatis, non constrictis, 13-15 × 3,4, hyalinis.

Hab. in apotheciis Stictæ platyphyllæ Nyl. in prov. Yun-nam Sinarum (R. P. Delavay).

2. **Pharcidia dealbans** (J. Müll.) Sacc. et D. Sacc. *Sphærella dealbans* J. Müll. Flora 1872, pag. 507, ap. Zopf in N. Act. Leop. Carol. LXX, 1898, p. 268. — Peritheciis innatis, globulosis, 200 μ. diam., nigris, thallo stellatim fisso cinctis, demum prominulis et poro apertis; ascis subcylindricis 45-50 μ. longis, sursum paullo crassioribus, obtusis, 8-sporis; sporidiis tereti-ovoideis, vulgo curvulis, 1-septatis, constrictulis, 14-18 μ. longis, cellula sup. paullo crassiore et breviore, hyalinis. 2184

Hab. in thallo, quem dealbat, Endocarpi Loscosi in Aragonia Hispaniæ.

3. **Pharcidia Verrucariarum** (Arnold) Sacc. et D. Sacc. *Arthopyr. Verrucariarum* Arnold, Tir. XXV, pag. 44 (nomen). — Peritheciis minutis, nigris; ascis cylindraceis, octosporis; sporidiis elongato-oblongis 21-23 × 3-4, bicellularibus; paraphysibus obsoletis v. nullis. 2185

Hab. in thallo Lithoiceæ margaceæ in Tirolia.

4. **Pharcidia innata** (Nyl.) Sacc. et D. Sacc. *Verrucaria innata* Nyl. Flora 1865, p. 358. — Peritheciis immersis, nigris, minutis; ascis octosporis, no v. vix paraphysatis, jodo vix lutescentibus; sporidiis ovoideis, bicellularibus, 18-23 × 8-11. 2186

Hab. in thallo Dacampiæ Hookeri in Ben. Lawers Scotiæ (Jones).

5. **Pharcidia lacustris** (Arnold) Zopf in Hedw. 1896, p. 317, *Thelidium lacustre* Arnold Lich. Ausfl. Tir. XXV, p. 30 (1893). — Peritheciis sparsis, punctiformibus, emersis; ascis 8-sporis, elongatis; sporidiis fusiformibus, distichis, bicellularibus, hyalinis, saepe 4-guttatis, 27-30 × 9-11. 2187

Hab. in thallo Aspiciliæ lacustris in Tirolia.

6. **Pharcidia rhyparella** (Nyl.) Zopf, Hedw. 1896, p. 325, *Verrucaria rhyparella* Nyl. Flora 1870, p 38. — Peritheciis nigris, leviter emergentibus 100 μ. latis; ascis jodo non tinctis, aparaphysatis; sporidiis ovoideis, bicellularibus, 11-14 × 5-6. 2188

Hab. in thallo Dacampiæ Hookeri in Lapponia. — An, observante cl. Zopf l. c., eadem ac *Ph. Schœreri?*

7. **Pharcidia conioides** (Nyl.) Sacc. et D. Sacc. *Verrucaria conioides* Nyl. Fl. 1875, p. 447, Wainio Adj. II, pag. 194. — Peritheciis 2189

perexiguis, semiimmersis, nigris; ascis aparaphysatis ventricosis, 26-32 × 11-12, 8-sporis; sporidiis oblongo-ovoideis, bicellularibus, hyalinis, 11-12 × 3-3,5.

Hab. in thallo Solorinæ saccatæ in Fennia. — Perithecia 70 μ. lata.

8. **Pharcidia rivulorum** (Kernst.) Sacc. et D. Sacc. *Arthopyrenia rivulorum* Kernstock ap. Arn. Tir. XXV, pag. 403. — Peritheciis perexiguis, globosis, nigris; ascis in quoque perithecio paucis, aparaphysatis, sessilibus; sporidiis ovoideis v. ellipsoideis, bicellularibus, medio constrictis, 12,5-14 × 5,5-6. 2190

Hab. in thallo Verrucariæ pachydermæ in Tirolia. — Asci jodo immutati.

9. **Pharcidia Rhexoblepharæ** (Wainio) Sacc. et D. Sacc. *Verrucaria Rhexoblepharæ* Wain. Adj. II, p. 194. — Peritheciis perexiguis 100 μ. diam. nigris, semiimmersis; ascis ellipsoideis 30 × 15-18, octosporis aparaphysatis; sporidiis bicellularibus, hyalinis, ovoideo-oblongis, 14-16 × 4-5. 2191

Hab. in thallo Rhexoblepharæ coronatæ in Lapponia.

10. **Pharcidia allogena** (Nyl.) Sacc. et D. Sacc. *Verrucaria allogena* Nyl. Fl. 1865, p. 357. — Peritheciis semiimmersis, nigris, 250 μ. diam. parte immersa subincoloribus; ascis 8-sporis; sporidiis hyalinis, bicellularibus, 23-27 × 8-9. 2192

Hab. in thallo Rhizocarpi excentrici in Scotia (Carroll).

11. **Pharcidia Atryneæ** (Arn.) Sacc. et D. Sacc. *Endococcus Atryneæ* Arnold 1882, p. 410. — Peritheciis punctiformibus, exiguis, sparsis v. subcongestis, nigris; ascis octosporis; sporidiis bilocularibus, oblongis, 12-14 × 4-4,5; paraphysibus nullis. 2193

Hab. in apotheciis Lecanoræ cenisiæ in M. Cavallazzo, pr. Paneveggio, Trentino.

12. **Pharcidia Martinatiana** (Arn.) Sacc. et D. Sacc. *Arthopyr. Martinatiana* Arn. Flora 1871, p. 147, 1872, pag. 572. — Peritheciis nigris minutissimis; ascis octosporis, filiformi-paraphysatis, jodo fulvescentibus; sporidiis bicellularibus, hyalinis, 12-16 × 3. 2194

Hab. in thallo Lecideæ crustulatæ vel Lec. Martinatianæ in agro Veneto.

13. **Pharcidia Crombiei** (Mudd) Sacc. et D. Sacc. *Endocarpia Crombiei* Mudd Brit. Clad. p. 36, Linds. Enum. p. 29. — Peritheciis atris punctiformibus; ascis . . . ; sporidiis perexiguis, ellipsoideis, continuis, tandem bilocularibus, hyalinis. 2195

Hab. in thallo Thamnoliæ vermicularis in Britannia.

14. **Pharcidia glebarum** (Arn.) Sacc. et D. Sacc. *Arthopyrenia glebarum* Arn. Flora, 1887, p. 152. — Peritheciis punctiformibus, atris, hinc inde confertis; ascis medio subinflatis, aparaphysatis, octosporis, 30–33 × 12-15; sporidiis elongatis, 1-septatis, vulgo 4-guttatis, 12-15 × 3, biseriatis, hyalinis. 2196

Hab. in glebis thalli Thalloidimæ cæruleo-nigræ in ins. Corfù.

15. **Pharcidia superposita** (Nyl.) Sacc. et D. Sacc. *Verrucaria superposita* Nyl. Flora 1865, p. 357 — Peritheciis nigris 200-250 μ. diam.; ascis octosporis jodo rubro-tinctis; sporidiis ovoideis, bicellularibus 17-19 × 7-8, hyalinis; paraphysibus nullis. 2197

Hab. in thallo Polyblastiæ terrestris in cacumine Ben Lawers Scotiæ (Jones et Carroll).

16. **Pharcidia hygrophila** (Arn.) Wint. — Syll. IX, p. 677. — v. **minor** Bagl. et Carest. Anacr. 1881, p. 355 (sub nomine *Endococci hygrophili* β. *minoris*). — Ascis ellipsoideis 8-sporis; sporidiis fusiformibus v. subcuneato-elongatis, bilocularibus, hyalinis, 12-16 × 4. 2198

Hab. in thallo Verrucariæ hydrelæ pr. Riva Valdobbia Ital. bor.

17 **Pharcidia lichenum** Arnold — Syll. IX, p. 677 — var. **Olivaceæ** Arnold Ausfl. VII, p. 302. — Peritheciis minutis, nigris; ascis octosporis aparaphysatis; sporidiis bicellularibus, hyalinis 15 × 6-7. 2199

Hab. in thallo Parmeliæ olivaceæ in Tirolia.

MYCOSPHÆRELLA Johans. s. s. — Syll. IX p. 659.

1. **Mycosphærella Cookei** (Linds.) Sacc. et D. Sacc. *Microthelia Cookei* Linds. Obs. pag. 537, tab. XXIII, fig. 29. — Peritheciis sparsis, papillatis, nigris; ascis saccatis polysporis, irregularibus, 45 × 11-12; paraphysibus indistinctis conglutinatis; sporidiis perexiguis, oblongo-ellipsoideis, hyalinis, 5,5-6 × 2,5, 1-septatis, non constrictis, inordinate polystichis. 2200

Hab. in thallo Lecanoræ crenulatæ in Britannia. — Ob paraphyses præsentes etsi coalitas a typo recedit.

STIGMATEA Fr. — Syll. I p. 541, IX p. 660, XIV p. 534, XVI p. 478.

1. **Stigmatea Gnaphalii** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 255. — Peritheciis gregariis vel subsparsis, cuticula pustulatim elevata velatis et foliorum villo cinctis, globosis, minute obtusiuscule papillatis, nigris 100–150 μ. diam.; ascis cylindraceis, sursum 2201

obtuse tenuatis, breve et crasse stipitatis 50–55 × 10–11, octosporis; paraphysibus filiformibus, septulatis; sporidiis inordinatis, 1–2-stichis, elliptico-ovoideis vel elliptico-fusiformibus, utrinque obtusulis, rectis vel curvulis, medio vel submedio 1-septatis et profunde constrictis, hyalinis, 4-guttulatis, 14–19 × 5 cellula superiori plerumque crassiori.

Hab. in pag. infer. foliorum Gnaphalii silvatici, Luxemburg. — Affinis *Stigm. Rumicis.*

2. **Stigmatea Grewiæ** P. Henn. in Ergebn. der Kunene-Sambesi 2202
Expedition p. 165 (1902). — Maculis brunneis vel fuscis, rotundatis, exaridis; peritheciis amphigenis, gregariis, innato-prominulis, membranaceis, lentiformibus, levibus, atris, collabentibus, ca. 130–160 μ. diam.; ascis clavatis, apice rotundatis, octosporis 30–40 × 7-10; sporidiis distichis vel oblique monostichis, oblongis, subfusoideis vel clavatis, 1-septatis, 7-8 × 3-3,5 hyalinis.

Hab. in foliis Grewiæ caffræ, Kuitoufer pr. Kutue et Sobi Africæ austr.

3. **Stigmatea Piperis** Rehm in Hedw. 1901, p. (105). — Peritheciis 2203
in maculis foliorum orbicularibus, papyraceo exsiccatis, albidis, fusco-purpureo cinctis, 0,5-1 cm. diam., epiphyllis, gregariis, innatis, globosis, vix perspicue ostiolatis, 150–200 μ. diam., contextu e cellulis grandibus fusco; ascis clavatis, crasse tunicatis, apice rotundatis, 50-55 × 15, octosporis; sporidiis oblongis, obtusis, medio septatis, vix constrictis, demum subflavidulis, 15-17 × 7–8, distichis; paraphysibus non visis.

Hab. in foliis vivis Piperis cujusdam frutescentis, Petropoli, Rio de Janeiro Amer. austr. (v. Höhnel).

4. **Stigmatea Pandani** Pat. Bull. Soc. Mycol. 1904, p. 136. — Maculis 2204
amphigenis, orbicularibus, fuscis, 2-4 cm. latis; peritheciis præcipue epiphyllis, erumpentibus minutis, atris, conicis; contextu celluloso, olivaceo, molli; ascis subsessilibus, late ovoideis, crasse tunicatis, octosporis 60-70 × 20-30; paraphysibus numerosis, linearibus, ramosis; sporidiis elongatis, medio 1-septatis, vix constrictis, 27-30 × 10–12, hyalinis.

Hab. in foliis vivis Pandani odoratissimi in insulis Gambier Polynesiæ.

VENTURIA Ces. et De Not. — Syll. I p. 586, IX p. 687, XI p. 305, XIV p. 541, XVI p. 489.

1. **Venturia Deutziæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2205

p. 245. — Peritheciis atro-brunneis, membranaceis sparsis, epidermide tectis, globosis, basi applanatis, leviter collapsis 150-200 μ. diam., setulis rigidis, atro-brunneis 25-75 × 2,5-4, vestitis, ostiolo breviter conico; ascis late clavatis, breve stipitatis vel sessilibus 70 × 15-16, octosporis; sporidiis distichis, oblongo- vel obovato-ellipsoideis, sæpius rectiusculis, infra medium septatis, hyalinis, intus granulosis, 21-27 × 7-8.

Hab. in ramulis emortuis Deutziæ scabræ, Luxemburg. — *Vent. Oxyriæ* proxime affinis.

2. **Venturia Cratægi** Aderh. Ber. Deutsch. Bot. Ges. 1902, p. 200, 2205
tab. IX, et in Ann. Mycol. 1903, p. 520. — Peritheciis gregariis, hypophyllis, globosis, breve papillatis, 150 μ. diam., setis circ. 30 μ. longis, nigris prope ostiolum vestitis; contextu polygonio, tenui, subdiaphano; ascis saccatis 60-70 × 9-11, octosporis; sporidiis superne monostichis, inferne distichis, oblongis, bicellularibus, 13-15 × 4,5-6, melleis, septo supra medium divisis.

Hab. in foliis Cratægi Oxyacanthæ, hieme perdurantibus Erfurth et Kup Germaniæ. — Status conidicus est *Fusicladium Cratægi*, de quo confer infra.

3. **Venturia Kunzei** Sacc. — Syll. I, p. 588. — var. **ramicola** Sacc. et 2207
Scalia, Harrim. Alaska Exped. Crypt. p. 31, pl. IV, fig. 8. — A typo differt peritheciis ramicolis in crusta stromatica (propria?) nascentibus.

Hab. in ramis Rubi stellati, Unalaska Alaska (Harrington).

4. **Venturia rubicola** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2208
p. 15. — Peritheciis initio laxe sparsis, subcutaneis, membranaceis v. subparenchymaticis, 80-110 μ. diam., dein erumpentibus, collabentibus setulis continuis, nigris, 20-40 × 3, curvulis, annulatim dispositis ornatis; ascis sessilibus, aparaphysatis, oblongis, 50-60 × 10-12; sporidiis dense distichis, oblongo-ellipticis, bi-guttulatis (dein 1-septatis?) 12-15 × 6-8, hyalinis.

Hab. in sarmentis emortuis Rubi occidentalis, Tacoma Park, Amer. bor. (C. L. Shear). — A *V. Kunzei* Sacc. ascis et sporidiis majoribus differt.

5. **Venturia Thwaitesii** Mass. et Crossl. in the Natural. 1904, p. 3. — 2209
Peritheciis minutis, 100-125 μ. diam., superficialibus, gregariis, tenui-membranaceis, globulosis collabascentibus, pilis rigidulis acutis, strictis, demum nigro-brunneis 60-70 × 3-3,5; ascis fusiformibus 35-40 × 6-7; sporidiis hyalinis 1-septatis, subcylindraceis, utrinque obtusiusculis, rectis vel leviter curvulis, 10-12 × 2.

Hab. in sarmentis emortuis Rubi Idæi, Masham Britanniæ (W. A. Thwaites).

6. **Venturia tirolensis** v. Höhnel in Ann Mycol. 1903. I. p. 395 — 2210
Perithecis epiphyllis, in epidermide immersis, tectis, subsphæroideis vel ovoideis, 100-160 μ. latis, tunica molli, pallida, cortextu parenchymatico, vertice atro, subclypeato, ostiolo parvo perforato, setis numerosis, usque 30-40, simplicibus, acutis, atris, hinc inde atro-brunneis, apice paullo pallidioribus, usque 200 μ. long., et 7 μ. crassis prædita; ascis late clavatis, octosporis 85-100 × 12-24, mox diffluentibus, paraphysatis; sporidiis subdistichis vel conglobatis, ovoideis vel ovoideo-elongatis, prope basin septatis, ad septum non constrictis, hyalinis, demum luteolis, 20-24 × 9-10.

Hab. parasitica in pag. sup. foliorum Dryadis octopetalæ, in valle Sulden Tiroliæ.

7. **Venturia Speschnewii** Sacc. et D. Sacc. *Coleroa venturioides* Spe- 2211
schnew Tid. Bot. 1904. pag 80. t. III. f. 14-19. — Perithecis gregariis, subglobosis, ochraceis, primo leviter epidermide tectis, dein epiphyllis, subsuperficialibus 100-130 μ. diam., 50-80 μ. altis, setulis flexuosis, septatis, fuligineis 50-60 × 5-6 vestitis; ascis clavatis 30-40 × 8-10, aparaphysatis 8-sporis; sporidiis oblongo-ovoideis, dilutissime chlorinis, 14 × 8.

Hab. in maculis brunneolis indistinctis amphigenis foliorum Theæ sinensis, Tschakwa pr. Batum Caucasi.

8. **Venturia caulicola** Rostr. Islands Svampe in Bot. Tidsskrift 1903, 2212
vol. 25. pag. 304. — Perithecis superficialibus, dense setulosis, gregariis, in maculis atris, caulem ambientibus; ascis elongatis, 40-44 × 8-9; sporidiis ovoideo-oblongis, hyalinis, 1-septatis 13-14 × 5-6, loculis inæqualibus.

Hab. in caule Rumicis Acetosæ, in Islandia.

9. **Venturia euchæta** Penz. et Sacc. in Malpighia 1902, p. 227, Ic. 2213
fung. Jav. t. XI, fig. 1. — Perithecis sæpius hypophyllis, densiuscule gregariis, subsuperficialibus, punctiformibus, nigris, globulosis 100-115 μ. diam., poro exiguo pertusis, radiatim setosis; setulis remotiusculis, cuspidatis, basi bulbillosis, continuis, opacis, 56-60 × 7 (basi), omnibus regularibus; ascis tereti-fusoideis subsessilibus, utrinque obtusulis 30-33 × 7, aparaphysatis, octosporis; sporidiis oblique monostichis, oblongis, hyalinis, utrinque obtuse tenuatis, rectis 7 × 2,5, medio obsolete 1-septatis, non constrictis.

Hab. in foliis subcoriaceis, sulvivis plantæ indet., Depok, in insula Java. — Species setulis eumorphis statim distinguenda.

10. **Venturia nebulosa** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. 2214
— Amphigena; maculis ellipticis 2-5 mm. diam. vel confluentibus; peritheciis ovato-globosis 75–100 μ. diam., superne erumpentibus, membranaceis, setulis nigris, continuis 30-40 × 3 vestitis; ascis oblongis, abrupte basi contractis et breve stipitatis, aparaphysatis 35-45 × 12-15; sporidiis distichis, oblongo-ovatis, hyalinis, 1-septatis, parce constrictis, 12-15 × 5.

Hab. in foliis emortuis Eragrostidis spec. Alabama Amer. bor. — *V. erysiphoidi* E. et E. et *V. graminicolæ* Wint. affinis.

DIDYMELLA Sacc. — Syll. I p. 545, IX p. 661, XI p. 301, XIV p. 535, XVI p. 479.

1. **Didymella confertissima** Sacc. Atti congr. bot. di Palermo 1902, p. 50. 2215
— Peritheciis longe lateque effusis, confertissimis, maculas latas atras formantibus, innato-prominulis, globosis, vix papillatis, poro latiusculo pertusis, 180-200 μ. d., nigris, intus albis; contextu parenchymatico, duriusculo, fuligineo, ostioli periphysibus subhyalinis; ascis rosulatis, oblongo-clavatis, apice rotundatis, deorsum sensim tenuatis 85-100 × 24-28, octosporis; paraphysibus crassis, articulatis, mox dilabentibus; sporidiis distichis vel subtristichis oblongo-clavulatis 25-35 × 8–9, medio 1-septatis, non v. vix constrictis, apice paullulo obtusioribus, hyalinis, eguttatis.

Hab. in cortice Cacteæ cujusdam, Rio de Janeiro Brasiliæ (E. Ule). — Socia adest *Exosporii* species imperfecte evoluta.

2. **Didymella fusispora** Mc. Alp. Fung. diseas. Stone-fr. trees, Melb. 2216
1902, p. 124, f. 255–257. — Peritheciis sparsis, minutis, nigris, erumpentibus, globosis, membranaceis, initio subcutaneis, dein superficialibus, poro pertusis 120–150 μ. diam.; ascis oblongis basi constrictis, octosporis 34–37 × 13; paraphysibus numerosis, filiformibus; sporidiis conglobatis, fusiformibus, curvulis, 1-septatis, utrinque acutis non constrictis 26–28 × 3,5–4.

Hab. in ligno emortuo Pruni Armeniacæ, Armadale Australiæ.

3. **Didymella apiculata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2217
1903, p. 251. — Peritheciis gregariis omnino tectis, globosis, basi subapplanatis 300–400 μ. diam., ostiolo breve cylindraceo v. conoideo epidermidem perforante; ascis anguste clavatis, apice subrotundatis, breve stipitatis, filiformi-paraphysatis 6–8-sporis 50-72 × 8-10; sporidiis mono-distichis, fusiformibus, utrinque acutato-api-

culatis, constrictulo-1-septatis, 14-17 × 4-5 ex hyalino dilute fuscellis, cellula superiori subinde paullo incrassata.

Hab. in ramis siccis Rubi cæsii, Luxemburg. — A *Didymosphæria Idæi* sporidiis subhyalinis, apiculatis mox differt.

4. **Didymella Ricini** Ell. et Ev. — Syll. XIV, p. 535. — f. **Ailanthi** Ell. et Ev. in Jour. of Mycol. 1902, p. 67. — Ascis 45-50 × 10-12; sporidiis oblongo-ellipticis, obtusis, luteo-hyalinis, curvulis 12-15 × 5-6. 2218

Hab. in ramulis emortuis Ailanthi glandulosæ, Alabama Amer. bor. — f. **Mucunæ** Ell. et Ev. l. c. — Ascis 40-45 × 8-10; sporidiis oblongo-fusoideis, curvatis 12-15 × 4-5,5 uniseptatis. — In caulibus Mucunæ utilis l. c. — f. **Hibisci** Ell. et Ev. l. c.: Ascis 50 × 10; sporidiis curvatis, luteolis 12-15 × 4-4,5, 2-3-guttulatis. — In Hibisco esculento ibidem.

5. **Didymella cladophila** (Niessl) Sacc. — Syll. I, pag. 545. — var. **buxicola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 251. — A typo differt peritheciis brunneis, nec nigris, sæpe in acervulos confertis erumpentibusque; ascis minoribus, 55-75 × 6-8, sæpe 6-sporis et sporidiis oblongo-ellipsoideis 12-13,5 × 4. 2219

Hab. in ramis corticatis, siccis Buxi sempervirentis, Luxemburg.

6. **Didymella sambucina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 252. — Peritheciis gregariis, epidermide omnino tectis, globosis vel basi subapplanatis, nigris 400-500 μ. diam., verruciformi-papillatis; ascis clavatis, superne rotundatis, deorsum tenuatis, subsessilibus 55-68 × 10-15, octosporis; sporidiis inordinate distichis vel inferne monostichis, oblongo-ellipsoideis, utrinque acutulis, rectis vel curvulis, continuis, dein 1-septatis, non constrictis, sæpius biguttulatis, hyalinis 10-16 × 5-6. 2220

Hab. in ramulis corticatis Sambuci nigræ, Luxemburg. — Paraphyses non observatæ: an ergo *Didymellæ* species genuina?

7. **Didymella Cymbalariæ** Feltg. Vorstud. Pilz. Luxemburg. Nachtr. III, 1903, p. 250. — Peritheciis sparsis vel gregariis, epidermide velatis, globosis, basi applanatis, nigris, 100-200 μ. diam., ostiolo minuto, conoideo-emergente; ascis cylindraceis, breve stipitatis, octosporis 63-72 × 5,5-7; sporidiis monostichis, ellipsoideis v. ovoideis, medio constrictulo-1-septatis, hyalinis, minute guttulatis, 11-13 × 4,5 cellula superiore paullo crassiore. 2221

Hab. in caulibus siccis Linariæ Cymbalariæ, Luxemburg.

8. **Didymella Quercus** Oud. in Ned. Kruidk. Arch. 3 ser. II, 4, p. 869, 2222

1903. — Epiphylla; maculis irregularibus, raro confluentibus, albo-luteolis pallidis; peritheciis membranaceis, nigris, initio velatis dein erumpentibus, globoso-depressis 300-400 μ. diam, poro pertusis; ascis cylindraceis, superne rotundatis 84 × 10, in stipitem brevem desinentibus, octosporis; sporidiis biconoideis, centro constrictis, 20-23 × 5-6, quadri-guttulatis, superne inflatis, inferne curvatis obtusis; paraphysibus linearibus, obtusis, continuis, asco longioribus.

Hab. in foliis Quercus rubræ, Naarden Hollandiæ (C. J. Koning).

9. **Didymella pedemontana** Ferr. et Sacc., Atti congr. bot. Palermo 1902. 2223
p. 50. — Peritheciis laxe gregariis v. sparsis, globulosis, sinuato-erumpentibus, membranaceis, nigris, 240-250 μ. diam., obtuse papillatis; ascis clavatis, breve stipitatis, apice rotundatis, sæpe curvulis 72-85 × 12, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis, fusoideis, medio constricto-1-septatis, utrinque obtuse acutatis 21-22 × 4,5-5, grosse 4-guttatis, hyalinis.

Hab. in ramulis corticatis emortuis Quercus penduculatæ, prope Crescentino Italiæ bor. — Affinis *D. Cadubriæ,* sed notis datis satis diversa.

10. **Didymella pallida** Starb. in Arkiv. för Bot. 1904, Band 2, p. 17. 2224
— Peritheciis sparsis v. hinc inde laxe gregariis, interdum nonnullis confertis v. confluentibus immersis, vertice paullum emergentibus, discoideis v. depresse lenticularibus, 200-250 μ. diam. circa ostiolum vix papillulatum areola pallide griseo-orbiculari præditis, contextu pulveraceo-carbonaceo, atrato; ascis cylindraceis sursum obtusis v. rotundatis, incrassatis, subsessilibus, 65 × 10; sporidiis octonis subdistichis, ellipsoideo-oblongis, utrinque obtusis, 1-septatis, non constrictis, hyalinis, 12-14 × 4-6; paraphysibus copiosis, filiformibus gracillimis, flexuosis, ramulosis, 1 μ. cr.

Hab. ad lignum prope Rio Apá, Colonia Risso, Paraguay. — Ob perithecia lignicola subcarbonacea ostiolumque areolatum videtur potius *Melanopsammæ* sp.

11. **Didymella elliptica** Starb. in Arkiv. för Botan. 1904, Band 2, 2225
p. 16, fig. 36-39. — Peritheciis laxe gregariis, interdum 2-3 confluentibus, fibris ligni primum tectis, deinde erumpentibus, ellipticis v. oblongatis, utrinque obtusis, depressis, rarius orbiculari-lenticularibus, rugosis, carbonaceis crassis, immersis, primo clausis deinde papillula, mox collapsa præditis, demum ore latiusculo, lacerato apertis, nigris, 400-500 × 150-200; ascis cylindraceis, apice rotundatis, 1-foveolatis, deorsum paullo crassioribus v. subclavatis,

breve stipitatis 56-75 × 9-11. 8-sporis; sporidiis monostichis, vulgo inferne subdistichis, elongato-ellipsoideis v. subclavulatis utrinque obtusiusculis, ad medium 1-septatis, hyalinis 12-15 × 5-6,5; paraphysibus copiosis filiformibus, flexuosis, ramulosis, hyalinis, 1 μ. cr.; jodi ope nulla.

Hab. ad truncum siccum, Corumbá, Matto Grosso Brasiliæ — Ob perithecia lignicola, carbonacea potius *Melanopsammæ* species.

12. **Didymella goyazensis** Sacc. et Syd. Ann. Mycol. 1904. p. 162. — 2226
Peritheciis in series breves longitudinales digestis, globulosis, innatis, erumpentibus, perexiguis, 80-100 μ. diam., ostiolo breve papillato, facile sese lentibus; ascis cylindraceis, breviter stipitatis, 45-64 × 5½-7 octosporis, paraphysatis; sporidiis distichis, fusoideis, utrinque attenuatis, medio 1-septatis, subhyalinis vel flavidis, 11-15 × 2-2½.

Hab. in foliis Andropogonis hirtiflori, Goyaz Brasiliæ (A. Glaziou). — Ubi sporidia tandem nigrescant ad *Didymosphæriam* species transferenda esset.

13. **Didymella subalpina** Rehm, Hedw. 1902, p. 204. — Peritheciis 2227
dispersis, primitus immersis, denique sessilibus, glabris, globosis, poro conspicuo pertusis, fusco parenchymatice contextis, membranaceis, atris, 200 μ. diam.; ascis clavatis 60-65 × 10-12, octosporis; sporidiis ellipticis, subobtusis, medio septatis, ad septum valde constrictis, utrinque biguttulatis, hyalinis 12-14 × 5, distichis; paraphysibus filiformibus, hyalinis, 2 μ. crassis.

Hab. in foliis siccis gramineis sub monte Taubenberg Bavariæ superioris.

14. **Didymella præstabilis** Rehm in Œst. Bot. Zeitschr. 1904, p. 83. 2228
— Peritheciis plerumque gregariis, in parenchymate foliorum fuscato primitus innatis, dein subsessilibus, globosis, haud papillatis poro vix conspicuo pertusis, siccis patellariformiter collabentibus, parenchymatice contextis, glabris, fusco-atris 200-250 μ. diam.; ascis ellipticis vel piriformibus, basi lata sessilibus, crasse tunicatis 60-75 × 18-21, octosporis; sporidiis obiongo-ellipticis, interdum subclavatis, obtusis, medio septatis, vix constrictis, utraque cellula plerumque 1-2 guttas oleosas magnas includente, rectis, rarius subcurvatis, hyalinis 18-25 × 6-9, distichis; paraphysibus paucis, ramosis.

Hab. ad culmos foliaque graminum juxta moles glaciales montis Ortler et montis Taschach Tiroliæ.

Didymellopsis Sacc. Species lichenicolæ.

15. **Didymella latitans** (Nyl.) Sacc. et D. Sacc. *Oryzum latitans* Nyl. 2229
Flora 1885, pag. 298. — Peritheciis innatis, minutissimis, nigris; ascis oblongo-saccatis 8-sporis, paraphysatis; sporidiis oblongo-ovoideis, bicellularibus, 16-21 × 6-7, hyalinis.

Hab. in thallo Omphalariæ cribelliferæ prope Amélie Pyrenæorum orient.

16. **Didymella perigena** (Nyl.) Sacc. et D. Sacc. *Sphæria perigena* Nyl. 2230
Flora 1878, p. 341. — Peritheciis nigris, globosis, 150 μ. diam.; ascis octosporis, clavato-cylindraceis, molliter paraphysatis; sporidiis fusiformibus, bilocularibus, hyalinis, 18-23 × 6-7.

Hab. in thallo Endopyrenii trapeziformis, Biskra Algeriæ.

17. **Didymella verrucosaria** (Linds.) Sacc. et D. Sacc. *Microthelia* 2231
verrucosaria Linds. Enum. p. 27, *Cercidospora* Arn. Lich. Fränk. Jura, 1890, pag. 48, Mudd Man. 165. — Peritheciis punctiformibus, atris, contextu olivaceo; ascis cylindraceis, filiformi-paraphysatis, octosporis; sporidiis bicellularibus, hyalinis, 15–17 × 5.

Hab. in thallo Aspiciliæ verrucosæ in Britannia et in Jura franconico.

18. **Didymella sphinctrinoides** (Zwackh) Berl. et Voglino — Syll. IX, 2232
p. 672. — var. **immersæ** Arnold ap. Zopf, Hedw. 1896, p. 339: Peritheciis immersis globosis nigris; ascis cylindricis 8-sporis; sporidiis bicellularibus, hyalinis, 18 × 6; paraphysibus filiformibus.

Hab. in thallo Lecidellæ immersæ, in Germania.

19. **Didymella epicarphinea** (Nyl.) Sacc. et D. Sacc. *Verrucaria epi-* 2233
carphinea Nyl. Flora 1872, p. 431. — Peritheciis nigris prominulis 150–180 μ. diam.; ascis 8-sporis; sporidiis ovoideis v. fusoideis, bicellularibus, 18–25 × 6-7, hyalinis; paraphysibus mediocribus.

Hab. in thallo Placodii carphinei in Pyrenæis orient.

20. **Didymella Bérengeriana** (Arnold) Sacc. et D. Sacc. ***Endococcus*** 2234
Bérengerianus Arnold apud Wint. Pilzfl. II, pag. 348, *Pharcidia hygrophila* var. *Bérengeriana* (Arnold) Sacc. — Syll. IX, p. 676. — Peritheciis minutissimis, nigris, globosis prominulis; ascis oblongis, paraphysatis, octosporis; sporidiis bicellularibus, hyalinis, 22–28 × 5-6.

Hab. in thallo Biatoræ Bérengerianæ in Tirolia.

MASSARINULA Gen. de Lamarl — Syll. XIV p. 536, XVI p. 483.

1. **Massarinula phyllodiorum** Mc Alp. Proc. Linn. Soc. N. S. Wales 2235
1903, pag. 555. — Maculis numerosis, amphigenis, plus minusve orbicularibus, sæpe confluentibus, pallidis vel pallide brunneis, distincte brunneo-marginatis; peritheciis paucis, nigris, diu immersis dein erumpentibus, globosis, subcarbonaceis, poro pertusis, 250 μ. diam.; ascis clavatis, subsessilibus, octosporis 120-140 × 30-50; sporidiis distichis vel conglobatis, hyalinis, lanceolatis, 1-septatis, ad septum subconstrictis, rectis vel subcurvulis, 54-64 × 13-16; paraphysibus copiosissimis, agglutinatis, filiformibus, subseptatis.

Hab. in phyllodiis Acaciæ longifoliæ, Mordialloc in Victoria Australiæ (C. French).

2. **Massarinula Barbieri** (West.) Rehm — v. **subalpina** Rehm Ascom 2236
exs. n. 1570, Ann. Mycol. 1904, p. 520: cfr. Sacc. Syll. I, p. 547 sub *Didymella*. — Peritheciis basi insculptis, 150 μ. diam., contextu brunneo parenchymatico; ascis clavatis, apice rotundatis, sessilibus, 50 × 12, octosporis; sporidiis bicellularibus, lacryiniformibus, utrinque rotundatis, septo leviter constrictis, 4-guttatis, hyalinis, distichis, 12 × 6, strato mucoso tenui obductis.

Hab. in ramulis emortuis Ericæ carneæ, Valepp, in alpibus bavaricis.

APIOSPORA Sacc. — Syll. I p. 539, IX p. 659, XI p. 301, XIV p. 534, XVI p. 477.

1. **Apiospora chondrospora** (Ces.) Sacc. et D. Sacc. Ita vocanda est *Cryptosporella chondrospora* (Ces.) Rehm — Syll. I, pag. 467 — nam ejusdem sporidia et perithecia fabricam *Apiosporæ* præbent Cl. Ruhland — cfr. Syll. XVI p. 485 — ad genus novum *Aplacodina* superfluum, ut videtur, erexit Cl. v. Höhnel nuperius, Ann. Mycol. 1904, p. 42 ad *Spegazzinulam* duxit inter *Hypocreaceas*, a quo genere omnino abhorret.

MELANOPSAMMA Niessl — Syll. I p. 575, IX p. 682, XI p. 303, XIV p. 539, XVI p. 486.

1. **Melanopsamma balnei-ursi** Rehm, Œster. Bot. Zeitschr. 1903, p. 10. 2237
— Peritheciis sparsis, lata basi sessilibus, subglobulosis, haud papillulatis, poro vix conspicuo pertusis, nigris, opacis, glabris, 500-800 μ. d., contentu crassiusculo, parenchymatico, submembranaceo; ascis 10-14, octosporis; sporidiis ellipsoideis, utrinque obtusis, medio septatis et paullulum constrictis, utrinque crasse guttulatis,

hyalinis, distichis, 20 × 8, cellula superiore interdum sublatiore; paraphysibus subramosis, septatis, hyalinis 1,5 μ. cr.

Hab. ad ramulos emortuos Dryadis octopetalæ in Valle Kaiserthal Tiroliæ. — A *Melanops. anaxæa* satis diversa.

2. **Melanopsamma utahensis** Ell. et Ev. in Journ. of Mycol. 1903, 2238
p. 168. — Peritheciis gregariis, diu epidermide tectis, dein superficialibus, subglobosis, subdepressis, circ. 0,5 mm. diam.; ascis clavato-cylindraceis, breve pedicellatis, 75 × 12; paraphysibus evanescentibus; sporidiis subdistichis, clavato-oblongis, hyalinis, 1-septatis, constrictis, subcurvulis, 25-30 × 6-7.

Hab. in caulibus emortuis Acteæ rubræ, Salt Lake, Utah. Amer. bor.

3. **Melanopsamma nitens** Rehm, Hedw. XLIV p. 3 (1904). — Peri- 2239
theciis in maculis epiphyllis, suborbicularibus, cinerescentibus ob hyphas rectangulariter ramosas, hyalinas, arcte congregatas arachnoideis, c. 1 cm. diam., gregarie sessilibus, conoideis, atris, nitentibus, poro minutissimo pertusis, carbonaceis, 0,25-0,5 mm.; ascis cylindraceis p. sporif. 50-60,5-6, 8-sporis; sporidiis fusiformibus, utrinque rotundatis, medio septatis, utraque cellula guttis oleosis magnis 2 prædita, ad septum leviter constrictum faciliter secedentibus, hyalinis, 8-10-2,5-3, monostichis; paraphysibus filiformibus, 1,5.

Hab. in foliis Meliaceæ, Blumenau Brasiliæ (E. Ule). — Peritheciis magnis nitidis sporidiisque vero minutis dignoscitur.

4. **Melanopsamma minima** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2240
II, p. 211. — Peritheciis sparsis, globoso-depressis, non collabascentibus, basi leviter insculptis vel libero-superficialibus, rugulosis, atro-brunneis, 80-150 μ. diam.; ascis elliptico-ovoideis, 31-40 × 13-15; sporidiis 2-3-stichis vel inordinatis, ovoideo-ellipsoideis, bicellularibus, cellula superiore paullo crassiore, leviter constrictis, rectis curvulisve, hyalinis, vulgo biguttatis, 18-21 × 5-6,5.

Hab. in ligno putri Salicis, Luxemburg. — Contextus perithecii parenchymaticus, atro-brunneus, cellulis exterioribus colliculoso-prominulis.

ERIOSPHÆRIA Sacc. — Syll. I p. 597, IX p. 696, XI p. 307, XVI p. 490.

1. **Eriosphæria conoidea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2241
1903, p. 282. — Peritheciis dense gregariis, cortice interiori basi insculptis, erumpentibus dein sub vertice leniter collabentibus, hy-

phis septatis ramulosis, 2 μ. cr., brunneis, præcipue basi vestitis, levibus,; ascis cylindraceis v. cylindraceo-clavatis, apice rotundatis, 2-foveolatis, crasse breve stipitatis, 62–72 × 6-8, octosporis; sporidiis mono-distichis, tereti-ellipsoideis utrinque obtusis, continuis, dein medio tenuiter 1-septatis, non constrictis, hyalinis, 2-guttulatis, 8-9 × 3,5-5.

Hab. in cortice sicco Piri communis, Luxemburg.

2. **Eriosphæria Scheremetieffiana** P. Henn. in Hedw. 1904, p. 69. — 2242
Peritheciis superficialibus, sparsis v. gregariis, punctiformibus, hyphis castaneis septatis 3-4 μ. crassis circumdatis, ovoideis, atris, vertice obtusis, 70–100 × 50–70 μ. diam., setulis rigidis, atris, acutis 20-30 × 3-4 μ. vestitis; ascis clavatis, apice obtuse rotundatis, octosporis 30-40 × 4-5; sporidiis oblique monostichis vel subdistichis, oblonge cylindraceis, utrinque obtusis, rectis vel subcurvulis, 7-8 × 1,5-2,5, medio septatis, hyalinis.

Hab. in ligno decorticato Quercus pedunculatæ, Michailowskoje, in ditione Mosquensi Rossiæ.

3. **Eriosphæria atriseda** (Feltg). Sacc. et D. Sacc. *Trichosphæria* 2243
atriseda Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 205. — Peritheciis gregariis, ligno denigrato superficialibus, globoso-ovoideis, conico-papillatis, papilla alba, denique papilla elapsa pertusis, nigris, minute rugulosis 0,1-0,2 mm. latis, basi hyphis septatis, brunneis, ramosis 2-3 μ. cr., cinctis; ascis cylindricis, sursum leviter tenuatis, subsessilibus vel modice stipitatis, 30-45 × 2,5-3,5; paraphysibus filiformibus, septatis, 2-3 μ. crassis; sporidiis vulgo recte monostichis, breve cylindraceis, utrinque rotundatis v. ovoideis, rectis curvulisve, bi-cellularibus, vix constrictis, hyalinis, 4,5-6,5 × 2-2,5.

Hab. in ligno decorticato putri Alni glutinosæ, Luxemburg. — Lignum usque 2-3 mm. profunde denigratum; habitus *Eriosphæriæ vermicularioidis*.

4. **Eriosphæria blumenavica** Henn. in Hedw. 1902, p. (64). — Peri- 2244
theciis superficialibus sparsis v. aggregatis, membranaceo-subcarbonaceis, globosis, apice papillatis v. depressis, atris 350–400 μ. d., setulis atris, rigidis vestitis; ascis subclavatis v. subfusoideis, apice subobtusis, basi attenuatis, substipitatis, octosporis 80–95 × 24-30; paraphysibus copiosis filiformibus, subhyalinis, ca. 3 μ. crassis; sporidiis subdistichis oblonge ellipsoideis, utrinque obtusis, medio 1-septatis, paullo constrictis, 25-30 × 10-13, hyalinis.

Hab. in ramulis corticatis, S. Catharina Brasiliæ (Dr. Möller).

LIZONIELLA P. Henn. Hedw. 1901, p. (96) ut subg. (Etym. a *Lizonia*). — A typo *Lizoniæ* differt imprimis sporidiis omnino hyalinis. Huc ergo quoque ducendæ: *Lizoniella Jacquiniæ* (Bres.) Sacc. et D. Sacc. *L. Sphagni* (Cooke), *L. halophila* (B. R. S.), *L. opposita* (B. et R.), *L. Lagerheimii* (Rehm).

1. **Lizoniella Johansonii** (Rehm) Sacc. et D. Sacc. *Lizonia Johansonii* Rhem in Œst. Bot. Zeitschr. 1904, p. 86. — Peritheciis in parte sup. foliorum gregariis, erumpenti-superficialibus, glabris, globulosis, haud papillulatis, atris, parenchymatice fusco-nigro-contextis, 100-150 μ. diam.; ascis oblongis, apice rotundatis sessilibus, 70 × 30 octosporis; sporidiis oblongis, utrinque rotundatis, medio septatis, haud constrictis, hyalinis 30-32 × 15, distichis; paraphysibus nullis. 2245

Hab. in foliis siccis Dryadis octopetalæ, in monte Herzogenstand Bavariæ.

2. **Lizoniella Gastrolobii** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizoniella) *Gastrolobii* P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. (96). — Syll. XVI, p. 1133 (nomen). — Maculis fuscis; peritheciis amphigenis, cæspitose erumpentibus, epidermide fissa, pallida velatis, cæspitulis pulvinatis ca. 0,5-1 mm. diam., atro-brunneis, e peritheciis subconfluentibus numerosis, subglobosis, minutis, subrugulosis, compositis; ascis clavatis v. subfusoideis, apice obtusiusculis, basi attenuatis curvulis 60-70 × 15-20, aparaphysatis, octotosporis; sporidiis oblique monostichis vel distichis, oblongis vel subfusoideo-clavatis, utrinque obtusiusculis, medio 1-septatis, paullo constrictis, hyalinis, pluriguttulatis 16-23 × 6-8. 2246

Hab. in foliis vivis Gastrolobii spinosi, Perth Australiæ occid.

3. **Lizoniella Oxylobii** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizoniella) *Oxylobii* P. Henn. F. Australiæ occid. I, in Hedw. 1901, p. 97. — Syll. XVI, p. 1133 (nomen). — Maculis fuscidulis; peritheciis submembranaceis, epiphyllis, cæspitose erumpentibus, raro simplicibus, subglobosis, lateraliter compressis, atro-brunneis, rugulosis, haud papillatis, ca. 150-180 μ. diam., in cæpistulis pulvinatis effusis, confluentibus, contextu celluloso, castaneo; ascis clavatis v. fusoideo-clavatis, apice crasse tunicatis, obtuso-rotundatis, basi attenuatis 80-100 × 15-20, octosporis, aparaphysatis; sporidiis oblique monostichis v. distichis, oblongis v. subclavatis 2-pluriguttulatis, medio 1-septatis, paullo constrictis, 18-22 × 7-9, hyalinis. 2247

Hab. in foliis vivis Oxylobii linearis, Perth Australiæ occid.

4. **Lizoniella Perkinsiæ** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizo- 2248

niella) *Perkinsiæ* Henn. in Hedw. 1902, p. (63). — Maculis fuscis, perithecis cæspitose aggregatis in soris pulvinatis 0,5-1 mm. diam., erumpenti-superficialibus, subglobosis, rugulosis, atro-brunneis ca. 300 μ. diam, vix papillatis; ascis oblonge ovoideis vel clavatis, apice hyalino-tunicatis, obtusis, octosporis 45-60 × 18-26; sporidiis distichis v. conglobatis, oblongis subcylindraceis vel subclavatis, utrinque obtusis, 20-23 × 6-7 hyalinis.

Hab. in foliis vivis Styracis Roramiæ, Gujana britannica (R. Schomburgk).

5. **Lizoniella singularis** (P. Henn.) Sacc. et D. Sacc. *Lizonia* (Lizo- 2249
niella) *singularis* P. Henn. in Hedw. 1903, p. (80). — Perithecis superficialibus, singularibus, raro aggregatis, subcoriaceis, subglobosis, atris, 40-50; ascis fasciculatis, clavatis, apice truncatis, octosporis, 18-22 × 4-5; sporidiis distichis 1-septatis, haud constrictis, clavatis, hyalinis, 8-10 × 2-2,5.

Hab. in foliis siccis Leucopogonis hispidi, pr. Minginew Australiæ occid. (E. Pritzel, L. Diels).

OTTHIELLA Sacc. — Syll. I, p. 739 (ut subgenus). A genere *Otthia* differt sporidiis hyalinis v. subhyalinis. — Huc ducendæ sunt, præter *Otthiellam Ribis*, sequentes: *Otthiella seriata* (Peck) Sacc. et D. Sacc., *Otthiella Winteri* (Rehm) Sacc. et D. Sacc., *Otthiella Hazslinszkyi* Sacc. et D. Sacc., *Otthiella alnea* (Peck) Sacc. et D. Sacc. — Cfr. Syll. I, p. 739-740.

1 **Otthiella Ribis** (Tracy et Earle) Sacc. et D. Sacc. *Otthia* (Otthiella) 2250
Ribis Tracy et Earle. Plantæ Bakerianæ, fasc. I, Fung. p. 29. — Perithecis dense cæspitosis, erumpentibus, subrotundis, nigris, rugosis, globosis, 250-500 μ. diam.; ascis cylindraceis, octosporis, stipitatis, 80-100 × 12-15; sporidiis distichis, ellipticis, hyalinis vel dilutissime luteolis, 1-septatis, constrictis, 18-20 × 5-6.

Hab. in ramis Ribis, Bob Creek, South Colorado Amer. bor.

GIBBERA Fr. — Syll. I p. 599, IX p. 699, XI p. 306, XIV p. 542, XVI p. 491.

1 **Gibbera juruensis** P. Henn. Fungi Amaz. II, p. 242, cum icone 2251
(Hedw. 1904). — Stromatibus subcarbonaceis atris; perithecis liberis superficialibus aggregatis, interdum confluentibus, rugulosis, verrucosis, atris, papillato-ostiolatis, ca. 250-300 μ. diam.; ascis cylindraceo-clavatis, obtusis, 8-sporis, 70-100 × 7-9; paraphysibus filiformibus, hyalinis, 1½-2 μ. crassis; sporidiis subdistichis, fusci-

deis, subacutis, medio 1-septatis constrictis, primo hyalinis dein flavidis, 18-22 × 4-5.

Hab. in foliis Bignoniaceæ cujusdam, Rio Juruá, Juruá-Miry Amazoniæ. — Perithecia deorsum non vere hirta sed verrucoso-aspera.

LENTOMITA Niessl — Syll. I, p. 584, IX p. 698, XIV p. 542.

1. **Lentomita dubia** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, 2252
pag. 279. — Peritheciis dense gregariis, omnino superficialibus vel in cortice suberumpenti-superficialibus, globosis v. basi subapplanatis, carbonaceo-membranaceis, nigris 250-300 μ. diam., ostiolo tenui, cylindrico vel curvulo 700-900 μ. long., apice subinde incrassatulo; ascis clavatis, breve stipitatis, sessilibus, apice rotundatis, nunc 40 × 10-13, nunc 80-87 × 12-14, octosporis; sporidiis 2-3-stichis, oblongo-fusoideis, acutiusculis, rectis vel curvulis, medio constricto-1-septatis 4-guttulatis, hyalinis 13-18 × 2,8-4.

Hab. in ramulis corticatis et decorticatis Callunæ vulgaris, Luxemburg. — Forte *Lentomitæ longirostratæ* affinis: an sporidia demum 3-septata?

2. **Lentomita herpotricha** Sacc. et in Atti congr. bot. Palermo 1902, [illegible]
p. 51. — Peritheciis gregariis v. sparsis, a basi innata globoso hemisphæricis, brunneis, 300-350 μ. d., hyphis fuligineis tortuosis 180-200 × 3, adpressis, ima basi cinctis, ceterum glabris, ostiolo cylindraceo obtuso, nigro, 180 × 80 præditis; perithecii contextu obscure dense celluloso, fuligineo; ascis cylindraceo-clavatis, breve stipitatis, apice rotundatis 90-100 × 11-12, filiformi-paraphysatis, octosporis; sporidiis distichis, fusoideis, curvis rectisve, utrinque obtusatis, medio 1-septatis, leviter constrictis, 4-guttulatis, 20-22 × 5, 5-6, hyalinis, tandem dilutissime fuscidulis.

Hab. in ligno denudato, putri, Rigny sur Arroux Galliæ. — Præcipue peritheciis brunneis ostioloque nigro, brevi dignoscenda species.

SPUMATORIA Massee et Salm. — Syll. XVI p. 1134.

1 **Spumatoria longicollis** Mass. et Salm. Coproph. fungi I, pag. 35, 2254
fig. 27. — Peritheciis sparsis, 0,75-1 mm. alt., semiimmersis demum superficialibus subglobosis, olivaceis, membranaceis, contextu parenchymatico e cellulis polygonis 6-10 μ. latis composito, glabris v. basi hyphis repentibus instructis, in rostrum longissimum cylindricum, atrum, rugulosum, apice fimbriatum plus minus

dilatatum, abrupte attenuatis; ascis cylindraceis 110-130 × 13-15 deorsum in stipitem attenuatis, octosporis citissime diffluentibus; sporidiis monostichis oblongis, utrinque rotundatis 15-19 × 5 hyalinis, 1-septatis, medio haud constrictis, demum in spumam mucilaginosam ex ore rostri ejectis; conidiis in eodem perithecio productis, oblongis, hyalinis 17-20 μ. long., 1-septatis, basi plus minus attenuatis, in conidiophoris simplicibus brevibus acrogenis.

Hab. in fimo equino, Epping Forest, Essex Britanniæ.

GNOMONIA Ces. et De Not. — Syll. I p. 561, IX p. 672, XI p. 302, XVI p. 483.

1. **Gnomonia pusilla** Sacc. et Flag. sp. n. — Peritheciis laxe gregariis, globulosis, membranaceis, nigris, $^1/_3$ mm. diam., epidermide tumidula velatis ostioloque acute papillato erumpentibus, basi (in sicco) leviter excavatis, contextu parenchymatico olivaceo-fuligineo; ascis tereti-oblongis, sessilibus, utrinque, præcipue apice, obtusulis, 22-26 × 5-7, aparaphysatis, octosporis, tunica tenuissima; sporidiis distichis v. oblique monostichis, fusoideis, rectis curvulisve, 6-8 × 2, utrinque obtusiusculis, rarius acutiusculis, 4-guttulatis, demum tenuiter 1-septatis, non vel vix constrictis, hyalinis. 2255

Hab. in caulibus emortuis Poterii Sanguisorbæ, Rigny sur Arroux (Saone et Loire) Galliæ. — Affinis præcipue *Gnom. tithymalinæ* sed omnibus partibus minor.

2. **Gnomonia Molluginis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 130, et III, 1903, p. 156, *Gnomonia borealis* Feltg. I, 1889, p. 384, non Schrœt. — Peritheciis late sparsis v. gregariis, epidermide tumidula tectis 300-500 μ. diam., globosis, basi applanatis et siccitate concavis, in ostiolum rostellatum, rectum vel curvum tenuatis; ascis clavatis vel fusoideo-clavatis, sessilibus, 45-54 × 8-10, fasciculatis; sporidiis distichis elliptico-fusiformibus 15-18 × 4-5, utrinque obtusulis, constricto-1-septatis, 4-guttulatis. 2256

Hab. in caulibus siccis Galii Molluginis, Luxemburg. — Affinis *Gnom. Fautreyi.*

3. **Gnomonia Hieracii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 156. — Peritheciis gregariis, late effusis, globoso-ellipsoideis epidermide immutata tectis 500 μ. diam., ostiolo brevi acute conoideo, nitido, perithecium dimidium æquante; ascis clavatis, clavato-fusoideis, deorsum stipitiformi-tenuatis, sursum leniter attenuatis, poro distincto præditis, 46-52 × 10-12,5, octosporis, apara- 2257

physatis; sporidiis bi-tristichis, fusoideis, utrinque rotundatis, constrictulo-1-septatis, 4-guttulatis, 13-15 ≈ 3-4.

Hab. in caulibus siccis Hieracii borealis, Luxemburg. — Affinis *Gn. tithymalinæ.*

4. **Gnomonia rhoina** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 131 *Diaporthe* spec. n. 633, Feltg. Vorstud. Pilz. Lux. 1899, I, p. 198, et *Gnomonia* spec. n. 675, Feltg. l. c. p. 213. — Peritheciis sparsis vel hinc inde confertis, corticolis et vulgo basi ligno insculptis, in ostiolum conicum vix emergens tenuatis; ascis tereticlavatis, breve stipitatis, obtusulis 40-60 ≈ 7-9; sporidiis monostichis oblongo-ellipsoideis, utrinque obtusis, constricto-1-septatis rectis vel curvulis 12-18 ≈ 3-4, 4-guttulatis, cellula superiore subinde crassiore. 2258

Hab in ramis siccis Rhois typhinæ, Luxemburg. — Ad *Diaporthem* nutat.

5. **Gnomonia Aceris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 131, et III, pag. 157. — Peritheciis 200 μ. diam. sparsis vel hinc inde approximatis, globosis, basi insculptis, peridermio tectis, ostiolo cylindraceo-rostellato, perithecio duplo vel triplo longiore; ascis clavato-fusoideis apice bifoveolatis 38-45 ≈ 7,5-10, octosporis, aparaphysatis; sporidiis, 2-3-stichis, obtuse fusiformibus, rectis, medio septatis, non constrictis, intus granulosis, 10-13 ≈ 2-3. 2259

Hab. in ramulis siccis Aceris campestris, Luxemburg.

6. **Gnomonia epidermidis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 157. — Peritheciis sparsis, subglobosis valde depressis, cum epidermide connatis, minute papillatis v. poro tantum præditis, perexiguis, 80-100 μ. diam.; ascis obovoideis 30-35 ≈ 10,5, octosporis, aparaphysatis; sporidiis 3-4-stichis, fusiformibus, acutulis, bicellularibus, 4-guttatis, rectis vel leviter curvis, hyalinis, 15-15,5 ≈ 2,6. 2260

Hab. in ramis corticatis Aceris campestris, Luxemburg. — Peritheciis minutissimis, cum epidermide connatis mox dignoscitur species.

7. **Gnomonia Æsculi** Oud. Beih. Bot. Centr. 1902, p. 5. — Peritheciis immersis, sparsis v. per paria confluentibus, globosis 500 μ. d., rostro recto v. curvulo, 500 μ. longo instructis; ascis distichis, hyalinis, cylindraceis, rectis v. curvatis, utrinque rotundatis, medio septatis, ad septum non constrictis, absque ciliorum vestigio, 3 v. 4-guttulatis, 16-18,5 ≈ 2,5. 2261

Hab. in petiolis Æsculi rubicundæ, Nunspect Hollandiæ.

— Ab omnibus fere speciebus descriptis differt ascis multo brevioribus (35 μ. contra 45-90 et a *Gn setacea* (Pers.) Ces. et De Not. ciliorum absentia.

8. **Gnomonia circumscissa** Mc. Alp. Fungus dis. Stone-fr. tr., Melb. 1902, p. 94, t. XXI, fig. 50,51,52. — Peritheciis minutis, amphigenis, punctiformibus, erumpentibus, intense luteo-brunneolis, membranaceis, poro pertusis 120-150 μ. diam., ostiolo 60-75 μ. long., in maculis minutis, nigris, gregariis, insidentibus; ascis subsessilibus, octosporis obclavatis 50-60 × 24-25, raro oblongo-cylindraceis 95-130 × 15-17; sporidiis subhyalinis vel pallide luteis in massa, ovato-oblongis, 1-septatis, non constrictis, eguttulatis, granulosis, 20-26 × 5,5-7,5. 2262

Hab. in foliis Pruni Armeniacæ, Pr. domesticæ, Pr. Cerasi, Pr. Persicæ. etc. in Australia.

9. **Gnomonia Vitis-Idææ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 129, *Gnomonia campylostyla* Auersw. var. β. Feltg. Vorstud. Pilz. Luxemb. 1899, p. 211. — Peritheciis immersis, ostiolo conico acuto tantum emergentibus; ascis . . . non visis; sporidiis fusiformibus bicellularibus, hyalinis, 12 × 2,5. 2263

Hab. in foliis adhuc stantibus vel delapsis Vaccinii Vitis-Idææ, Luxemburg.

10. **Gnomonia petiolicola** (Fuck.) Karst. — Syll. I, p. 568. — var. **Rhododendri** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 128. — A typo differt ostiolo cylindrico longiore; ascis ellipsoideo-fusiformibus, 40-52 × 8-10, 5; sporidiis æqualiter bilocularibus, fusiformibus, 12-18 × 2,5-3, utrinque filiformi-apiculatis. 2264

Hab. in petiolis Rhododendri spec., Luxemburg.

11. **Gnomonia rigniacensis** Sacc. et Flag. sp. nova. — Peritheciis gregariis parenchymate innatis, membranaceis, nigris, 1/3 mm., diam., ostiolo crassiusculo, tereti-conico, perithecium subæquante erumpente; contextu perithecii sinuoso, tenui, olivaceo-fusco; ascis tereti-fusoideis, 50 × 10-11, aparaphysatis, octosporis; sporidiis fusoideis, utrinque acutiusculis, 12-16 × 3-4,5, rectis v. leniter inæquilateris, quadriguttulatis, infra medium 1-septatis, non constrictis, hyalinis. 2235

Hab. in petiolis nervisque primariis foliorum putrescentium Corni sanguineæ. Rigny sur Arroux Galliæ. — Affinis *Gnomoniæ cerastæ*, *G. errabundæ*, *G. petiolicolæ* sed satis diversa; matrix quoque aliena.

12 **Gnomonia Needhami** Mass. et Crossl. in the Natural. 1904. p 3. 2266

— Peritheciis sparsis, semiimmersis, subglobosis, brunneo-nigris, 350 μ. diam., rostro longissimo, stricto, subcylindraceo, apicem fimbriato, concolore 1-1,5 mm. longo; ascis subovatis, 24-28 × 12-16; sporidiis hyalinis, 1-septatis, ellipsoideis, 14-22 × 6-8.

Hab. in foliis emortuis Abietis, Crimsworth Dean, Hebden Bridge Britanniæ (J. Needham).

MELANCONIS Tul. — Syll. I p. 602, IX p. 700, XIV p. 543, XVI p. 492.

1. **Melanconis populina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2267
p. 119. — Stromatibus sparsis, subrotundis 1 mm. lat., pulvinato-semiglobosis, cortice interiore subimmutato nidulantibus, nigricantibus, disco griseo-flavido erumpente, linea stromatica lignea nulla limitatis; perithecis in quoque stromate numerosis, globoso-ovoideis, 200-250 μ. diam., ostiolis obtuse conico-papillatis emergentibus; ascis tereti-clavatis, sursum leviter tenuatis, deorsum sensim tenuato-stipitatis, 63-76 × 9-10, 5, filiformi-paraphysatis, octosporis; sporidiis subdistichis, oblongo-ellipsoideis, rectis curvulisve, utrinque rotundatis, medio septato-constrictis, hyalinis, intus granulosis, 16-18 × 5.

Hab. in ramis siccis corticatis Populi italicæ, Luxemburg.

2. **Melanconis Quercus** Oud. Contrib. Fl. Myc. des Pays-Bas XVIII, 2268
p. 707. — Stromate valseo; perithecis in singulo stromate 6-12 collis robustis, obtusis, summo fere inflatis, ad 500 μ. altis; ascis elongatis 70 × 10-12, octosporis; paraphysibus filiformibus; sporidiis distichis, fusiformibus, utrinque obtusis, non appendiculatis 18,5 × 4,5 bi-guttulatis.

Hab. in ramis Quercus Roboris, Vaikenberg Hollandiæ.

DIAPORTHE Nits. — Syll. I p. 606, IX p. 702, XI p. 307, XIV p. 543, XVI p. 492.

1. **Diaporthe** Chorostate **Androsæmi** Feltg. Vorstud. Pilz. Luxemb. 2269
Nachtr. III, 1903, p. 152. — Stromatibus sparsis vel subgregariis e basi subrotunda 1-1,5 mm. lata, obtuse conoideis, epidermide bullata tectis; perithecis in quoque stromate paucis, cortice nidulantibus, ovoideis 300-400 μ. diam., collis brevibus in ostiola papillata in discum conjuncta abeuntibus; ascis tereti-fusoideis, octosporis 50-65 × 5,5-7; sporidiis subdistichis, obtuse ellipsoideis, rectis 1-septatis, leviter constrictis 4 guttulatis, hyalinis, 10-16 × 2,7-4,5

Hab. in ramulis corticatis Androsæmi officinalis, Luxemburg. — *Diap. Circæ* affinis videtur.

2. **Diaporthe** (Chorostate) **Feltgeni** (Feltg.) Sacc. et Syd. — Syll. XVI, p. 493. — var. **Cydoniæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 148. — A typo differt perithecis in quoque stromate parcioribus; ascis brevioribus, 50-65 × 8-12, octosporis; sporidiis paullo minoribus et obtusioribus, 11-16 × 4-5, quadriguttatis, nec granulosis. 2270

Hab. in ramulis Cydoniæ vulgaris, Luxemburg.

3. **Diaporthe** (Chorostate) **congesta** Ell. et Ev. in Journ. of Mycol. 1903, pag. 165. — Stromate conico-globoso 0,5 cm. diam.; perithecis globosis 0,5 mm. diam. ab imo stromatis immersis, 20-30 in singulo stromate congestis, papillato-ostiolatis; ascis clavato-cylindraceis, 60 × 6, octosporis; sporidiis oblongo-fusoideis, subdistichis, hyalinis, 3-4-nucleatis, dein 1-septatis, 11-13 × 2,5-3. 2271

Hab. in ramis emortuis Piri americanæ, Sailors' Encampment, Mich., Amer. bor.

4. **Diaporthe** (Chorostate) **Mali** Bres. in P. Strasser, Zweiter Nachtr. zur Pilzflora des Sonntagberges, in Verhandl. d. k. k. zool. bot. Ges. in Wien 1902, p. 433. — Stromatibus subepidermicis, cortice interiori innatis, verruciformibus, basi applanatis 2-3 mm. latis, apice conoideis, pallidis; perithecis 3-10 in quovis stromate, majusculis 300-500 μ. diam., obovatis vel mutua pressione difformibus, collis perithecii diam. paulo longioribus; ostiolis cylindraceis plus minus prominentibus apice subattenuatis; ascis fusoideis 65-72 × 10-14; sporidiis hyalinis, uniseptatis, ad septa subconstrictis, sæpe subcurvulis, guttulatis, 18-25 × 4-6. 2272

Hab. in ramis Piri Mali, Sonntagsberg Austriæ bor.

5. **Diaporthe** (Chorostate) **ribesia** Rehm in Œst. Bot. Zeitschr. 1904, p. 82. — Stromatibus valsoideis, conoideis, in cortice interiore immutato nidulantibus, per peridermium elevatum varieque dilaceratum erumpentibus 2-3 mm. diam.; perithecis globulosis 8-10 circinatim positis, 500 μ. diam., ostiolis subglobosis in disculo atro, dein pallide fuscidulo 1 mm. diam., circinatim emergentibus; ascis fusiformibus 60-75 × 15-18, octosporis; sporidiis oblongis, medio septatis ibique constrictis, utraque cellula guttam magnam oleosam includentibus, hyalinis, utrinque filiformiter 5 μ. long. appendiculatis, 18-20 × 6-7, distichis; paraphysibus ramosis. 2273

Hab. in ramulis siccis Ribis saxatilis, in alpibus vallis Œtz Tiroliæ.

6. **Diaporthe** (Chorostate) **spiræicola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 147. — Stromatibus dense confertis, ramos totos occupantibus, sæpe seriatis, basi cortice interiore vel ligno innatis, linea nulla stromatica cinctis, sed matricem intus dealbantibus, e basi 1-2,5 mm. lata, subrotunda subconicis, erumpentibus et ostiolis obtuse conicis vel subcylindraceis et nodosis, discum rotundum, latiusculum initio albidum formantibus; peritheciis mono-distichis, 15-30 in quoque stromate, 200-300 μ. lat.; ascis teretifusoideis, apice rotundatis bi-foveolatis, deorsum tenuatis 57-63 × 8,5, octosporis; sporidiis mono-distichis, fusoideis, acutis, rarius obtusis, rectis curvulisve, constrictulo-1-septatis, 4-rarius 6-guttulatis, 14-17 × 4,5, rarius 14 × 6, hyalinis. 2274

Hab. in ramis corticatis siccis Spirææ spec., Luxemburg. — *Diaporthe liphæmiæ* et *D. conjunctæ* affinis.

7. **Diaporthe** (Chorostate) **microstroma** Ell. et Ev. in Journ. of Myc. 1903, p. 224. — Stromatibus 0,5 mm. diam. subrotundis, nigris et ambitu in parenchymate interiori linea circumscriptis; peritheciis 1-4 præcipue in singulo stromate congestis, 250 μ. diam., ostiolo brevi, conico, papillato non erumpente donatis; ascis clavato-oblongis, 80-100 × 15-20, paraphysibus numerosis evanescentibus obvallatis; sporidiis distichis initio fusoideis, utrinque acutis, dein maturitate plus minusve obtusis 1.-septatis et constrictis, 22-30 × 10-13. 2275

Hab. in corticibus Aceris saccharini, London, Canada, Amer. bor.

8. **Diaporthe** (Chorostate) **celastrina** Ell. et Barth. in Journ. of Myc. 1902, p. 173. — Peritheciis circinantibus, 5-10-congestis, globosis, 500 μ. diam., intus griseis, immersis, ostiolis 0,5-1 mm. longis, brevibus levibus subconico-acuminatis fasciculatis erumpentibus; ascis clavato-cylindraceis 50-60 × 6-8; sporidiis superne distichis, oblongo-cylindraceis, bi-nucleatis, 1-septatis, ad septa constrictis, 12-15 × 4-5. 2276

Hab. in caulibus emortuis Celastri scandentis, Clyde, Kansas Amer. bor.

9. **Diaporthe** (Chorostate) **Buxi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 150. — Peritheciis ternis senis confertis, stromata valsea in cortice formantibus, dein erumpentibus et epidermide rupta cinctis, globosis, 200-250 μ. diam., ostiolis globoso-applanatis, erumpentibus, in discum vix emergentem conjunctis; ascis tereticlavatis, apice rotundatis, deorsum stipitiformi-tenuatis, octosporis 2277

78-104 × 10, aparaphysatis; sporidiis submonostichis oblongo-fusoideis, rectis, rarius curvulis, utrinque obtusis, 4-guttatis, medio 1-septatis constrictisque hyalinis, 15-20 × 5-5,5.

Hab. in ramis corticatis Buxi sempervirentis, Luxemburg. — Socia adest *Phomæ* spec., sporulis cylindraceis, biguttatis 5-6 × 1,5-2.

10. **Diaporthe** (Chorostate) **Comptoniæ** (Schw.) Ell. et Ev. — Syll. IX, p. 705. — var. **berolinensis** P. Henn. in Notizblatt des Kgl. bot. Gart. Berl. 1900, n. 22, p. 37. — Pustulis gregariis epidermide velata tectis, rimosis; peritheciis paucis 3-5, atris, ostiolis brevibus, 300-400 μ. diam.; ascis clavatis apice rotundatis, octosporis 30-50 × 10-13; sporidiis subdistichis, oblongis, subfusoideis, utrinque obtusiusculis v. acutiusculis, interdum subinæquilateralibus, medio 1-septatis, constrictis, 4-guttulatis, 16-19 × 4,5-5 hyalinis. 2278

Hab. in ramis Comptoniæ asplenifoliæ, in horto botanico Berolinensi Germaniæ.

11. **Diaporthe** (Chorostate) **Mezerei** Feltg. Vorstud Pilz. Luxemb. 1901, Nachtr. II, p. 126. *Diaporthe e*) Feltg. Vorstud. Pilz. Luxemb. I, 1899, p. 206. — Stromatibus sparsis, depresso-conoideis, cortice nidulantibus; peritheciis in quoque stromate 5-8, basi applanata ligno adnatis, sursum in ostiola conica, discum minutum vix emergentem formantia productis; ascis fusoideis 54-60 × 9; sporidiis distichis, ellipsoideis, obtusulis, constricto-1-septatis, 15 × 4-5, rectis hyalinis, 4-guttulatis. 2279

Hab. in ramis siccis Ampelopsidis hederaceæ, Luxemburg.

12. **Diaporthe** (Chorostate) **Juniperi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 149. — Stromatibus sparsis e basi subrotunda 1-2,5 mm. lata, obtuse conoideis, cortice nidulantibus, leviter inflantibus et discum nigrum 0,5-1,5 mm. diam. revelantibus; peritheciis in cortice immutato nidulantibus 6-18 in quoque stromate, monostichis, globosis, 200-500 μ. lat., collis coalitis in ostiola breve conica in discum conjuncta abeuntibus; ascis tereti-clavatis, apice rotundatis, bi-foveolatis, stipitatis, aparaphysatis 90-120 × 7-8, octosporis; sporidiis monostichis, ellipsoideis, rectis curvulisve 10-16 × 5-6 septo tenuissimo medio divisis, hyalinis, minute guttulatis. 2280

Hab. in ramis corticatis Juniperi communis, Luxemburg.

13. **Diaporthe** (Chorostate) **Pinastri** Feltg. Vorstud. Pilz. Luxemb. 1899, Nachtr. II, p. 126. — *Diaporthe c*) Feltg. Vorstud. Pilz. 2281

Luxemb. I, 1899, p. 205. — Stromatibus valsiformibus corticolis disco minuto, rotundo erumpentibus; peritheciis parcis, ostiolis obtusis præditis; ascis ovoideo-ellipticis 33-36 × 12-14; sporidiis fusiformibus, obtuse acutatis, rectis curvulisve, constrictulo-1-septatis, 2-3-stichis, 2–4-guttatis.

Hab. in ramis siccis Pini silvestris, Luxemburg.

14. **Diaporthe** (Chorostate) **anisomera** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. V, fig. 10. — Stromatibus gregariis, corticolis, erumpentibus, ambitu suborbicularibus, convexis, 1,3-1,5 mm. diam., intus ligneo-pallidis; peritheciis 10-20, globosis vel mutua pressione irregularibus, 200-250 μ. diam., monostichis, ostiolis breve cylindraceis, parum emergentibus, apice rotundatis; ascis fusoideo-clavatis, apice obtusis, deorsum tenuatis, 80-90 × 11-13, octosporis; sporidiis distichis, obovatis, 14–17 × 5-5,5, infra medium septatis, non constrictis, farctis, hyalinis et initio strato mucoso inæquali obductis, articulo superiore fere duplo majore. 2282

Hab. in ramis emortuis decorticatis Coryli (?), Yakutat Bay Alaska (Trelease). — Etsi matrix non certa, species videtur distinguenda ob sporidia eximie anisomera.

15. **Diaporthe** (Chorostate) **italica** (Sacc.) Trav. in litt. sp. nov. *Diaporthe forabilis* f. *acervata* Sacc. in herb. — Stromatibus valseis, sparsis vel gregariis, e basi ellipsoidea conico-applanatis, 1-2 mm. diam., corticolis, erumpentibus, infra linea nigra nulla circumscriptis; peritheciis in quoque stromate 4-8, circinantibus, subglobosis, $^1/_3$-$^1/_2$ mm. diam. in collum cylindraceum abrupte attenuatis; ostiolis in fasciculum dense stipatis, per peridermium perforatum erumpentibus, plus minusve longe exsertis, apice sæpe incrassatulis, atris; ascis cylindraceo-clavatis vel oblongis, apice bifoveolatis octosporis, 40-48 × 7-8; sporidiis distichis vel, multo rarius, oblique monostichis, ellipsoideo-fusiformibus, 4-guttulatis, medio uniseptatis sed non constrictis, hyalinis, 11–12 × 3-3 $^1/_2$. 2283

Hab. in ramis corticatis emortuis Populi pyramidalis, Patavii, martio 1874 (Sacc.). — A *Diaporthe* (*Ch.*) *populea* et *pulchella* ascis sporidiisque minoribus, 4-guttatis sed ad septum non constrictis ostiolisque magis elongatis satis distincta.

16. **Diaporthe** (Chorostate) **simplicior** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 154. — Stromatibus gregariis, subrotundatis e basi usque 1 mm. lata, obtuse conoideis, disco minuto, subrotundo; peritheciis parcis (4-6) in quoque stromate, in cortice immutato nidulantibus globoso-depressulis, nigris, 250-300 μ. lat., 2284

linea stromatica in ligno nulla; collis manifestis in ostiola globulosa parum emergentia abeuntibus; ascis tereti-fusoideis, apice bifoveolatis 43-48 × 5,5-8 octosporis; sporidiis distichis, oblongo-cylindraceis, obtusis, rectis, 1-septatis, leviter constrictis, 4-guttulatis, hyalinis, 10-13 × 2,5-3.

Hab. in ramis siccis Populi Tremulæ, Luxemburg.

17. **Diaporthe** (Chorostate) **caryigena** Ell. et Ev. in Journ. of Mycol. 1903, pag. 223. — Peritheciis 3-6 congestis, corticolis, globosis, 500 μ. diam., ambitu parenchymateque interiori linea nigra distincta 0,5-1 mm. diam. circumscriptis; ostiolis fasciculatis initio tectis, dein erumpentibus, papillatis; ascis subcylindraceis p. spor. 60 × 10; sporidiis submonostichis, ellipticis, 1-septatis utrinque rotundatis vel obtusis, constrictis, 9-13 × 3,5-4,5. 2285

Hab. in ramis corticatis Caryæ, London, Canada Americæ borealis.

18. **Diaporthe** (Tetrastaga) **rhoina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 145. — Stromate maculiformi, acute limitato, versiformi, 0,5-2,5 × 0,3-0,7 mm., plano convexo, nigrificante; peritheciis cortice nidulantibus, plerumque 2-4-approximatis, globoso-ovoideis, 200-300 μ. diam., ostiolis breve-conoideis emergentibus; ligno infra immutato sed linea stromatica nigra limitato; ascis oblongo-clavatis, sessilibus, octosporis 35-45 × 8-10; sporidiis distichis rarius tristichis, obtuse ellipsoideis, rectis v. curvulis medio septatis constrictisque, 4-guttulatis, hyalinis, 12-14 × 3,5-4,5. 2286

Hab. in ramis corticatis Rhois typhinæ, Luxemburg. — Affinis *Diap. crustosæ.*

19. **Diaporthe** (Tetrastaga) **tamaricina** Sacc. et Flag. in Atti Congr. bot. Palermo 1902, p. 52. — Peritheciis gregariis, cortice immutato immersis, globosis, perexiguis, vix 250 μ. d., ostiolo minutissimo perforante, vix exstante; ascis fusoideis aparaphysatis, octosporis; sporidiis distichis, fusoideis, sæpe curvulis, 10 × 2,5 obsolete guttulatis, hyalinis, utrinque obtusiusculis. 2287

Hab. in ramulis emortuis Tamaricis anglicæ, Paray-le-Monial Galliæ. — Linea nigra stromatica endoxyla nulla distincta.

20. **Diaporthe** (Tetrastaga) **Rhododendri** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 141. — Peritheciis gregariis, sparsis v. fere valsiformiter 4-5 approximatis, substantia stromatica nulla, globosis, ostiolis rotundatis, singulis vel pluribus epidermidem perforantibus et paullo emergentibus; ascis fusoideis, breve stipitatis, apice obtusato-conicis, bi-foveolatis 55-61 × 7-8, octosporis; spori- 2288

diis distichis, fusoideis, 1-septato-constrictis, 4-guttatis, 12-14 × 3-4, utrinque appendicula conica hyalina auctis.

Hab. in ramis siccis corticatis Rhododendri spec. cultæ Luxemburg.

21. **Diaporthe** (Tetrastaga) **Catalpæ** Ell. et Ev. in Journ. of Mycol. 1903, p. 224. — Peritheciis sparsis vel 2-4 congestis, 0,5-0,8 mm. diam., semiimmersis, ligno linea nigra 1-2 cm. diam. circumscripto, ostiolo subgloboso, erumpenti donatis; ascis clavato-oblongis 40-50 × 6-7; sporidiis subdistichis, fusoideo-oblongis, 4-nucleatis, 10-12 × 2,5-3. 2289

Hab. in ramis emortuis Catalpæ, London, Canada, Amer. bor.

22. **Diaporthe** (Tetrastaga) **sechalinensis** Sacc. in Atti congr. bot. di Palermo 1902, p 52. — Peritheciis gregariis, minutis, globoso-depressis, 300 μ. diam., membranaceis, nigris, intus griseis, cortice fere immutato nidulantibus, ostiolis conico-cylindricis perforantibus breviterque emergentibus; ascis fusoideis 48 × 8 aparaphysatis; sporidiis octonis fusiformibus, utrinque brevissime apiculatis, 13-15 × 3-4, 4-guttatis, hyalinis. 2290

Hab. in caule Polygoni sechalinensis culti, Côte-d'Or Galliæ (Fautrey). — A *Diap. discordi*, *D. discrepante* et *D. maculosa* satis diversa. Linea stromatica atra per lignum varie excurrit.

23. **Diaporthe** (Tetrastaga) **Nucis-Avellanæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 121. — Stromate effuso, maculiformi, nunc 0,4-0,8 mm. diam., nunc latiore 1-4 mm., valde versiformi, plura perithecia amplectente; peritheciis nunc sparsis, nunc fere valsiformiter congestis, matricis superficiem nigrificantibus, sed non elevantibus, substantiam interiorem non mutantibus, subglobosis, nigris 200-300 μ. diam., in ostiola nodulosa, cylindracea, recta vel curvula 300-800 μ. longa, abeuntibus; ascis fusoideis, apice bifoveolatis, 47-58 × 6,5-7,5, octosporis, rarius 5-6-sporis; sporidiis subdistichis, fusoideis, rectis vel curvulis constrictulo-1-septatis, 4-guttulatis, hyalinis, 13-18 × 4-5, utrinque appendicula conica 2,5-3 μ. longa auctis. 2291

Hab. in putaminibus Coryli Avellanæ, Luxemburg.

24. **Diaporthe** (Tetrastaga) **disputata** Bomm. Rouss. et Sacc. — Syll. XI, p. 312. — var. **Ulmi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 143. — A typo dignoscitur peritheciis paginæ inf. epidermidis adnatis, duplo crassioribus, 500-700 × 300-400, subastomis, inferne albo-pruinosis; ascis 40-60 × 5,5-7,5, aparaphysatis, 6-8- 2292

sporis; sporidiis distichis, rarius tristichis, 13-15 × 4-5, utrinque rotundatis, 4-guttatis, hyalinis.

Hab. in ramis corticatis Ulmi campestris var. suberosæ, Luxemburg. — An potius species distincta?

25. **Diaporthe** (Euporthe) **Hircini** Feltg. Vorstud. Pilzfl. Luxemb. 2293
Nachtr. III, 1903, p. 134. — Stromate effuso, non acute limitato, ligni stratum superiorem nigrificante, sed linea stromatica nulla in ligno limitato; peritheciis sparsis vel gregariis, subinde valsiformiter confertis, globosis 300-500 μ. diam., nigricantibus, ostiolis cylindraceis, rectis v. obliquis, rugosis, nunc brevibus, nunc sexies perithecium superantibus; ascis tereti-fusoideis, apice bifoveolatis 50-60 × 7-8, octosporis; sporidiis mono-distichis, fusiformibus, utrinque obtusis, medio septatis, non vel vix constrictis, 4-guttulatis 10-18 × 2,5-3,5, hyalinis.

Hab. in caulibus decorticatis Hyperici hircini, Luxemburg.

26. **Diaporthe** (Euporthe) **Teucrii** Feltg. Vorstud. Pilz. Luxemb. 1903, 2294
Nachtr. III, p. 134. — Stromate maculiformi, forma vario 1-6 cm. longo, 1-6 mm. lato, nigricante, in ligno linea nulla limitato; peritheciis subglobosis, nigris 200-250 μ., ligno subimmersis, sparsis v. aggregatis, plerumque seriatim erumpentibus, ostiolo rostellato 1 mm. et ultra long., recto v. curvo; ascis elliptico-fusoideis, sessilibus, 50-55 × 7-8, octosporis; sporidiis distichis breve fusoideis, rectis curvulisve, bicellularibus, constricto-septatis, hyalinis, 4-guttatis, 14-16 × 4-4,5.

Hab. in caulibus corticatis Teucrii Scorodoniæ, Luxemburg. — *Diaporthi Rubicæ* affinis.

27. **Diaporthe** (Euporthe) **conigena** Feltg. Vorstud. Pilz. Luxemb. 2295
Nachtr. III, 1903, p. 136. — Peritheciis globosis 200-300 μ. diam., sparsis vel paucis 3-10 valsiformiter aggregatis, parenchymate immutato nidulantibus, sed maculam brunneam nigram irregularem vel subrotundam convexulam efficientibus, ostiolis emergentibus solitariis vel sæpe in discum subrotundum, parum elevatum conjunctis; ascis clavato-fusoideis, breve stipitatis, octosporis, apice rotundatis, aparaphysatis 40-44 × 6,5-9; sporidiis distichis v. partim monostichis, obtuse fusiformibus, utrinque rotundatis, rectis curvulisve, medio septatis non v. vix constrictis, 4-guttulatis, hyalinis 11-15 × 4,5-5, utrinque primitus minute brevissimeque appendiculatis.

Hab. in squamis strobilorum Abietis excelsæ, Luxemburg.

28. **Diaporthe** (Euporthe) **verecunda** Sacc. et Flag. in Atti congr. bot. 2296

Palermo 1902, p. 52. — Peritheciis in interiore corticis durioris superficie fusco maculata immersis, globulosis, membranaceis, 400 μ. diam., atris, intus albidis, ostiolis exiguis, corticem perforantibus sed vix superantibus; ascis fusoideis, aparaphysatis, apice biloveolatis, 45-50 × 6,5-7,5 octosporis; sporidiis fusoideis utrinque obtusatis, 11-13 × 2,8-3, medio leviter constrictis, 4-guttatis, hyalinis.

Hab. in pag. interiore corticis secedentis Salicis (an capreæ?) Rigny sur Arroux Galliæ. — Notis datis videtur distinguenda.

MYRMÆCIUM Nitschke et Fuck. — Syll. I p. 600, XVI p. 492.

1. **Myrmæcium fraxineum** Ell. et Ev. in Journ. of Myc. 1903, p. 168. 2297
— Peritheciis ovato-ellipticis, 100-125 μ. diam., subimmersis, in stromate 3 × 1,5 mm. diam. confertis, superne planiusculis et erumpentibus, nigris, contextu albo; ascis cylindraceis, p. spor. circ. 75 × 8-10; paraphysibus evanescentibus; sporidiis monostichis vel superne distichis, ovoideis, hyalino-olivaceis, 1-septatis, plus minusve ad septum constrictis, 12-14 × 5-6.

Hab. in ramis emortuis Fraxini viridi? River Forest, Illin. Amer. bor. — A *M. endoleuco* Sacc. sporidiis subolivaceis, constrictis differt.

ENDOTHIA Fr. — Syll. I p. 600, IX p. 700, XIV p. 550.

1. **Endothia longirostris** Earle in Muhlenbergia 1901, p. 14. — Stro- 2298
matibus dense sparsis, subinde confluentibus læte flavis, matrice profunde insertis, innatis, demum erumpentibus vulgo subelongatis 5-6 × 2-3 mm.; peritheciis 5-6 usque 15 in quoque stromate immersis, nigris circ. 0,5 mm. diam., ostiolis longe exsertis, usque 1 cm., brunneo-flavis, rugulosis; ascis fusiformibus, tenuiter tunicatis, aparaphysatis 25-30 × 6, octosporis; sporidiis ovoideis, demum æqualiter 1-septatis, 6 × 3.

Hab. in cortice arborum prope Santurce Portorico. — Sporulæ pycnidicæ adsunt minutissimæ 2 × 1 ex ostiolis nonnullis in cirros corallinos eructatæ.

Sect. 5. Phæodidymæ.

PHÆOSPHÆRELLA Karst. — Syll. IX p. 723, XI, p. 312.

1. **Phæosphærella Marchantiæ** P. Henn. Verhandl. Bot. Ver. Prov. 2299
Brandenb. 1904, p. 120. — Maculis effusis, brunneo-fuscis vel ci-

nereis exaridis; peritheciis innato-erumpentibus, punctiformibus, gregarie sparsis, lenticularibus, atris, contextu membranaceo, fusco-atro, celluloso, modio poro late pertusis, ca. 80-100 μ. diam.; ascis subcylindraceis, vertice rotundato-obtusis, basi subfasciculatis, aparaphysatis, 8-sporis, 70-80 × 9-10; sporidiis oblique monostichis vel subdistichis, subclavato-fusoideis, rectis vel curvulis, utrinque subacutiusculis, medio 1-septatis, paulo constrictis, fuscis 10-15 × 3½-4.

Hab. in thallo Marchantiæ polymorphæ pr. Berlin Germaniæ (K. Osterwald).

2. **Phæosphærella araneosa** (Rehm) Sacc. et D. Sacc. Ita vocanda *Epicymatia araneosa* (Rehm) Sacc. — Syll. I, p. 572 — seu *Sphærellotheciun araneosum* (Rehm) Zopf in N. Act. Leop. Car. LXX, 1897, p. 178, cum icone. — Sporidia matura omnino fuliginea, 12,5-14,3 × 5,4; paraphyses nullæ.

TICHOTHECIUM Flotow — Syll. IX, p. 723, XIV, pag. 551, XVI, p. 498. — Aptius forte est hoc genus limitandum ad species tantum ascis polysporis sporidiisque phæodidymis præditas. Cfr. Syll. IX, p. 726, sect. II.

1. **Tichothecium microcarpum** Arn. Tirol. XIV, p. 477. — Perithe- 2300
ciis nigris, minutissimis; ascis 20-sporis aparaphysatis; sporidiis bicellularibus, brunneis, 6-8 × 3-3,5, ovoideis.

Hab. in apotheciis Callopismatis sp. et Biatorinæ dilutæ in Tirolia.

DIDYMOSPHÆRIA Fuck. — Syll. I p. 701, IX p. 728, XI p. 312, XIV p. 551, XVI p. 498.

1. **Didymosphæria minima** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2301
1903, p. 246. — Peritheciis gregariis vel sparsis, omnino tectis, globosis, basi applanatis, nigris 80-150 μ. diam., subinde epidermide denigrata tectis, ostiolo minuto conico, emergente; ascis tereticlavatis, deorsum tenuatis, filiformi-paraphysatis 55-85 × 3,5-5, octosporis; sporidiis mono-distichis, obovato-ellipsoideis vel subfusoideis, obtusulis, rectis vel curvulis 1-septatis, non constrictis, olivaceo-brunneis, 8-9 × 3-4, cellula superiori vulgo paullo crassiore.

Hab. in caulibus corticatis Echii vulgaris, Luxemburg. — Proxime affinis *Didym. subconoideæ*.

2. **Didymosphæria Stellariæ** v. Höhnel Fragm. zur Mycol. 1903, p. 6. 2302
— Foliicola; peritheciis teneris, sparsis, epidermide non nigre-

scente tectis, plerumque nervis foliorum insidentibus, sphæroideis, brunneis, obscurius papillatis, ostiolo 30-40 μ. lato pertusis, 170-250 μ. latis; tunica molli, e cellulis tenuibus, majusculis formata; ascis octosporis, clavatis, 80-100 × 16-18, breve et crasse pedicellatis; sporidiis distichis, flavis, elongato-fusiformibus, utrinque attenuatis, strato tenui, hyalino circumdatis, rectis vel plerumque curvulis, 24-36 × 6-9, didymis, cellula supera quam inferiore triplo vel quadruplo longiore, paraphysibus numerosis, filiformibus, crassiusculis.

Hab. in foliis languidis Stellariæ nemorum, in silvis prope Westendorf Tiroliæ

3. **Didymosphæria Idæi** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2303
II, p. 172. — Peritheciis gregariis 0,5-1 × 0,2-3 mm. epidermide immutata velatis et ostiolo conico atro-brunneo erumpentibus, globoso-depressis; ascis cylindricis, 82-104 × 8,5-10; sporidiis oblique monostichis, oblongis, sæpe inæqualiter bi-cellularibus, leviter constrictis, 13-15 × 4-5,5, brunneis, intus granulosis; paraphysibus tenuiter filiformibus.

Hab. in ramulis siccis Rubi Idæi, Luxemburg.

4. **Didymosphæria Rhois** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2304
1903, p. 248. — Peritheciis sparsis vel hinc inde approximatis, epidermide non elevata sed supra perithecia leviter denigrata tectis, globoso-depressis 150-450 μ. diam.; ascis cylindricis, breve stipitatis 80-100 × 7-9, filiformi-paraphysatis, octosporis; sporidiis monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio septatis, non v. vix constrictis, acutis curvulisve, brunneis 10-13 × 5-6.

Hab. in ramulis corticatis Rhois typhinæ, Luxemburg. — Tam a *Didym. majore,* quam a *Didym. rhoina* bene distincta. 2305

5. **Didymosphæria Hippophaës** Rehm, Hedw. 1903, p. (292). — Peritheciis gregarie sub epidermide nidulantibus eamque protrudentibus, globulosis, minutissime papillulatis, ostiolo conspicuo prominentibus, glabris, nigro-fuscis, ad basim hyphis nonnullis subfuscis, septatis 50 × 5 vestitis; contextu parenchymatico 100-120 μ. diam.; ascis obclavatis 60 × 12, octosporis; paraphysibus ramosis; sporidiis oblongis v. clavatis, utrinque obtusis, 1-septatis, utraque cellula sæpe 2-biguttulatis, interdum cellula superiore breviore, ad septum vix constrictis, flavido-fuscidulis 12-15 × 5-6, distichis.

Hab. in foliis putrescentibus Hippophaës rhamnoidis, Kaiserthal prope Hinterbärenbad Tiroliæ (Dr. Rehm).

6 **Didymosphæria massarioides** Sacc. et Brun. — Syll. IX, p. 729. 2306

— var. **Hederæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 248. — A typo differt clypeo stromatico nigricante circa ostiolum; peritheciis globosis 400-600 μ. diam.; ascis paullo longioribus 136-152 × 8-10; sporidiis non constrictis 19-21 × 5,5-7, brunneis.

Hab. in ramis corticatis Hederæ Helicis, Luxemburg.

7. **Didymosphæria cryptosphærioides** Rehm, Ann. Mycol. 1904, p. 176. 2307
— Peritheciis gregariis, sub epidermide albescente fere confertis, sed non botryose nidulantibus eamque subhemisphærice elevantibus, dein ostiolo conoideo minutissimo perforantibus, demum liberis, globosis, glabris, nigris 0,3 mm. diam. subcarbonaceis; ascis clavatis, apice rotundatis 120-140 × 12-15, octosporis; sporidiis ellipsoideis, medio septatis, haud constrictis, subfuscis 18-20 × 9-10, in ascis parte superiore distichis, in inferiore monostichis; paraphysibus ramosis, septatis, 4 μ. crassis.

Hab. ad corticem (Mesquite = Acacia? Prosopis?) Texas Amer. bor. (Long). — Peritheciis sub epidermide primitus gregariis eamque *Cryptosphæriæ* modo poris minutis perforantibus sporidiisque in ascis distiche positis a ceteris speciebus divergens, forsitan potius *Amphisphæriæ* species propter perithecia carbonacea.

8. **Didymosphæria epidermidis** (Fr.) Fuck. — Syll. I, p. 709. — var. 2308
petiolorum Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 174, *Didym.* spec. Felt. Vorstud. Pilz. Luxemb. I, 1899, p. 272. — Peritheciis sparsis immersis, vix papilla minuta emergentibus, globoso-depressis, collabascentibus; ascis tereti-clavatis, filiformi-paraphysatis, 84-90 × 7-9; sporidiis monostichis, obtuse ellipsoideis, brunneolis, ad septum leniter constrictis, eguttulatis v. biguttulatis 9-15 × 5-6.

Hab. in petiolis siccis Robiniæ Pseudacaciæ, Luxemburg. — Var. **Catalpæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 249. — A typo differt peritheciis non collabascentibus 100-400 μ. diam., sporidiis jugiter monostichis, vulgo eguttulatis, 10-13 × 5-6. In ramulis corticatis Catalpæ bignonioidis, Luxemburg.

9. **Didymosphæria lignicola** Feltg. Vorstud. Pilz. Luxemb. 1901, 2309
Nachtr. II, p. 173. — Peritheciis gregariis v. sparsis, ligno basi insculptis, erumpentibus, clypeo atrato, angusto tectis; ascis tereti-clavatis, breve stipitatis 52-65 × 8-9; sporidiis monostichis, ellipsoideis non constrictis, brunneis 8-10 × 4,5-5,5; paraphysibus filiformibus, ramosis.

Hab. in ramis decorticatis Populi canadensis, Luxemburg. — Var. **Frangulæ** Feltg. l. c. — A typo differt peritheciis plerumque seriatis, macula stromatica circa ostiolum magis expansa, ascis 52–70 × 6–9, tereti-clavatis; sporidiis monostichis, non constrictis, biguttatis, brunneis 8–11 × 5–6 et paraphysibusnon (?) ramosis. In ramis decorticatis Rhamni Frangulæ, Luxemburg.

2310 10. **Didymosphæria subcorticalis** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 173. — Peritheciis gregariis, immersis, ostiolo conico per epidermidem circum circa atratam erumpentibus; ascis . . . . non visis; sporidiis ellipsoideis, utrinque tenuatis, bi-cellularibus, bi-guttatis, brunneis, 15–18 × 5.

Hab. in pariete interiore corticis Salicis albæ, Luxemburg.

2311 11. **Didymosphæria nana** Rostrup — Syll. IX, p. 730. — var. **brachyspora** Sacc. Cfr. Harrim. Alaska Exped. Crypt. p. 30. — A typo differt; sporidiis paullo brevioribus, nempe 18–20 × 6,5–7,5 nec 25 × 7–8.

Hab. in foliis Alni, Port Vells Alaska (Treelease).

2312 12. **Didymosphæria minuta** Niessl. — Syll. I, p. 715. — var. **Pseudo-Acori** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 175. — A typo differt, ascis minoribus nempe 34–40 × 5–6 sporidiisque multo minoribus, nempe 7–8 × 2,5–3, profunde constrictis, brunneolis, bi-guttulatis.

Hab. in caulibus et pedunculis Iridis Pseudo-Acori, Luxemburg.

2313 13. **Didymosphæria Clementsii** Sacc. et D. Sacc. *Phorcys minutus* Clements in Bull. of the Torr. Bot. Cl. 1903, p. 84, nec *Did. minuta* Niessl. — Peritheciis solitariis, copiosis, raro subgregariis, primitus tectis, deinde epidermidem nigricantem pertusis, submembranaceis, depresso-globosis, ostiolo depresso, rugulosis, atro-brunneis, minutis 85–150 μ. diam.; ascis 6-8-sporis, irregulariter clavatis, brevibus, ad basim attenuatis 80 × 16–18; paraphysibus linearibus, paucis; sporidiis monostichis, sursum distichis, oblongo-ellipticis, uni-septatis, ad septum constrictis, levibus, brunneis, bi-guttulatis 13–16 × 6-7.

Hab. ad folia vetusta exsiccataque Yuccæ glaucæ, Cross Ruxton Amer. bor.

2314 14. **Didymosphæria Feltgeni** Syd. Ann. Myc. 1903, p. 177, *D. Typhæ* Feltg. Vorstud. Lux. Nachtr. II, p. 172, nec Peck. — Peritheciis gregariis, immersis, globosis, basi applanatis, ostiolo breviter cylindraceo-conico per epidermidem erumpentibus, atro-brunneis 200

μ. diam.; ascis oblongo-clavatis, subsessilibus 21-26 × 8-10, octosporis, paraphysibus filiformi-clavulatis, flaveolis, ascos superantibus; sporidiis inordinatis obovatis, inæqualiter bilocularibus, rectis vel curvulis brunneis 8-13 × 2,5-3,5.

Hab. in calamo Typhæ latifoliæ, Luxemburg. — Contextus perithecii atro-brunneus, parenchymaticus.

15. **Didymosphæria cypericola** P. Henn. Fungi Australien. II, p. 188. 2315
— Peritheciis sparsis, epidermide tectis dein erumpentibus, hemisphæricis, ostiolatis, membranaceis, atris, ca. 80-90 μ.; ascis cylindraceis, obtusiusculis, stipitatis, 8-sporis, 30-60 × 3 ½-4 ½; sporidiis oblique monostichis, oblongo-ellipsoideis, obtusiusculis, 1-2-guttulatis, medio 1-septatis haud constrictis, atro-fuscis.

Hab. in culmis Cyperaceæ cujusdam, Eumundi, S. Queensland, Australiæ (Doct. E. Pritzel).

16. **Didymosphæria striatula** Penz. et Sacc. in Malpighia 1901, p. 227, 2316
Ic. fung. Jav. t. VIII, fig. 2. — Peritheciis in greges minutos suborbiculares 1,5-2 mm. long. digestis, peridermio atrato tectis, globulosis 250-350 μ. diam., nigris, dein ostiolo papillato erumpentibus; ascis cylindraceis, apice obtusis, crassiuscule et breviter noduloso-stipitatis, 85-95 × 9-11, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis v. distichis, oblongo-fusoideis, sæpe inæquilateris, utrinque acutiusculis 20-23 × 7, uniseptatis, leviter constrictis, atro-olivaceis, tenuiter longitrorsum striatis.

Hab. ad culmos putres Bambusæ, Tjibodas Javæ. — Notis datis facile distinguenda species. Nota dignum quod in non paucis Ascomycetum speciebus javanicis sporidia longitudinaliter striolata occurrant, quod rarissime in europæis.

17. **Didymosphæria crastophila** (Niessl) Wint. — Syll. XI, p. 735. 2317
— var. **Brachypodii** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 175. — A typo differt ascis angustioribus et brevioribus, nempe 31-60 × 5 sporidiisque ovato-ellipsoideis, constrictis 6-8 × 2,5-3,5, brunneolis, loculo superiori paullo crassiore.

Hab. in culmis et vaginis Brachypodii silvatici Luxemburg.

18. **Didymosphæria arenaria** Mouton — Syll. IX, p. 736. — var. **macrospora** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. IV, fig. 9. — Sporidiis 40 × 13,5 (nec 30 × 14), fuscellis. 2318

Hab. in culmis Airæ cæspitosæ v. brevifoliæ, Shumagin Islands, Alaska (Harrington).

19. **Didymosphæria Patellæ** Rehm in Hedw. 1903, p. (175). — Peritheciis globulosis, parasitice in disco, sessilibus, glabris, 120 μ. 2319

diam., superius subhyalinis, ad basim fuscidulis et hyphis hyalinis, simplicibus, septatis, rectis 3 μ. cr. vestitis; contextu parenchymatico; ascis cylindraceis apice rotundatis, 80-90 × 9-10 octosporis: sporidiis dacryoideis, utrinque obtusis, medio septatis et subconstrictis, flavido-brunneis, 9-10 × 6, monostichis; paraphysibus filiformibus 1 μ. cr., hyalinis.

Hab. parasitica in disco Heterosphæriæ Patellæ (Tode) Grev. Haugrav Gotland Sueciæ.

Endococcus Nyl. (1854) em. Species lichenicolæ, parasiticæ.

(Huc referri possunt species *Tichothecii* ascis 4-8-sporis, sporidiis phæodidymis præditæ. Cfr. Syll. IX, p. 723, sect. I).

20. **Didymosphæria stereocaulicola** (Linds.) Sacc. et D. Sacc. *Microthelia stereocaulicola* Linds. Obs. p. 537, t. XXIII, f. 30. — Peritheciis verrucarioideis, papilliformibus, perexiguis, nigris, subimmersis; ascis 55-60 × 15, obsolete paraphysatis; sporidiis obovatis, hyalinis, 1-septatis, demum brunneis, 12-14 × 8. 2320

Hab. in thallo Stereocauli paschalis in Britannia.

21. **Didymosphæria parietinaria** (Linds.) Sacc. et D Sacc. *Microthelia parietinaria* Linds. Obs. p. 541, t. XXIII, f. 33. — Peritheciis minutis, nigris, punctiformibus v. papilliformibus, basi immersis; ascis non visis; sporidiis 1-septatis, brunneis, constrictis, 12-13 × 4 2321

Hab. in thallo Xanthoriæ parietinæ in Britannia.

22. **Didymosphæria Sporastatiæ** (Anzi) Wint. — Syll. IX, p. 739 — *Polycoccum Sporastatiæ* Anzi, forma **incongruæ** Arn. in Hedw. 1896, p. 337. — Peritheciis globosis nigris; ascis octosporis; sporidiis bicellularibus, fusoideis, brunneis. 2322

Hab. in thallo Lecideæ incongruæ in Tirolia.

23. **Didymosphæria squamarioides** (Mudd) Sacc. et D. Sacc. *Sorothelia squamarioides* (Mudd) Zopf, Hedw. 1896, p. 353, *Sphæria* Mudd, Man. p. 130. — Peritheciis congestis, punctiformibus, nigris; ascis cylindraceis, 8-sporis, paraphysatis; sporidiis fusoideis v. ovoideis vel subpiriformibus vel subcylindraceis 16-21 × 6-9, bicellularibus, brunneis. 2323

Hab. in thallo Placodii gelidi in Britannia. — Est fere absque dubio eadem ac *Tichothecium squamarioides* Wint. — Syll. IX, p. 725 — cujus tamen sporidia multo minora describuntur.

24. **Didymosphæria fumosaria** (Leight.) Sacc. et D. Sacc. *Verrucaria* 2324

fumosaria Leight. Brit. Lich. Fl. p. 493. — Peritheciis globoso-depressis semiimmersis, subdimidiatis; ascis octosporis aparaphysatis; sporidiis bicellularibus, brunneis, oblongis, 15-16 × 7.

Hab. in thallo Lecideæ fumosæ in Britannia.

25. **Didymosphæria pseudocarpa** (Nyl.) Sacc. et D. Sacc. *Endococcus pseudocarpus* Nyl. Flora 1873, p. 204, Zopf Hedw. 1896, p. 328. — Peritheciis sursum brunneis, deorsum vix coloratis; ascis octosporis sporidiis bicellularibus, brunneis, 9-15 × 5-6. 2325

Hab. in thallo Heppiæ Guepini var. nigrolimbatæ in Pyrenæis orient.

26. **Didymosphæria physciicola** (Nyl.) Sacc. et D. Sacc. *Mycoporum physciicola* Nyl. Fl. 1873, p. 299, Rehm Disc. p. 224. — Peritheciis globulosis, nigris prominulis; ascis octosporis; sporidiis oblongo-ovoideis, bicellularibus, 10-13 × 4-6, fuscis, septo constrictulis. 2326

Hab. in thallo Physciæ cæsiæ in Gallia.

27. **Didymosphæria pellax** (Nyl.) Sacc. et D. Sacc. *Endococcus pellax* Nyl. Flora 1873, p. 204. — Peritheciis omnino brunneis nec infra pallidis; ascis 8-sporis; sporidiis bicellularibus brunneis 9-15 × 5-6, oblongo-fusiformibus; paraphysibus nullis (?). 2327

Hab. in thallo Heppiæ obscurantis in Pyrenaeis orientalibus. — Peraffinis *D. pseudocarpæ*.

28. **Didymosphæria epicallopisma** (Wedd.) Sacc. et D. Sacc. *Tichothecium epicallopisma* Wedd. Nouv. rev. d. Lichens etc. 1873, p. 22, *Phæospora epicallopisma* (Wedd.) Arn. ap. Zopf, Hedw. 1896, p. 327 (*Verrucaria*). — Peritheciis nigris; ascis octosporis; sporidiis brunneis, bicellularibus. 2328

Hab. in thallo Gyalolechiæ callopismatis, Blossac Galliæ.

29. **Didymosphæria Gyrophoræ** (Arnold) Sacc. et D. Sacc. *Pharcidia Gyrophoræ* (Arnold) Zopf in Hedw. 1896, p. 327. — Peritheciis innatis, 100-160 × 80-130; ascis aparaphysatis, latis, vix stipitatis, 4-8-sporis; sporidiis bicellularibus, tandem brunneis 13-17,9 × 7-8. 2329

Hab. in thallo Gyrophoræ cylindricæ in Germania.

30. **Didymosphæria opulenta** (Th. Fr. et Almq.) Sacc. et D. Sacc. *Endococcus opulentus* Th. Fr. et Almq. Botaniska Not. 1867, p. 109. — Peritheciis subglobosis, semi-immersis, atris, diam. circ. 100-150; paraphysibus in gelatinam diffluxis; ascis subventricosis 8-sporis; sporidiis dyblastis, loculo inferiore angustiore, utrinque obtusis, nigricantibus, 24-26 × 12-13; gelatina hymenæa, jodo leviter cærulescente. 2330

Hab. in thallo Polyblastiæ intercedentis et Lecideæ

enteroleucæ v. latypeæ pr. Midtkläppen, Herjedalen Sueciæ (S. Almquist.)

31. **Didymosphæria fusigera** (Th. Fr. et Almq.) Sacc. et D. Sacc. *Endococcus fusiger* Th. Fr. et Almq. Botaniska Notiser 1867, p. 109. — Peritheciis subglobosis, semiimmersis, atris, diam. circ. 0,2 mm.; paraphysibus in gelatinam diffluxis; ascis cylindrico-subinflatis 8-sporis; sporidiis fusiformibus, dyblastis, nigricantibus, 16-8 × 6; gelatina hymen. jodo vinose rubente. 2331

Hab. in thallo Rhizocarpi geminati prope Funnesdalen Herjedalen Sueciæ (S. Almquist.).

32. **Didymosphæria Dannenbergii** Stein ap. Arn. Exs. n. 1514 (absque diagnosi). — Peritheciis subsparsis, innato-erumpentibus, globulosis, nigris, nitidulis, 250-300 μ. diam.; ascis tereti-clavatis subsessilibus, filiformi-paraphysatis, octosporis, 86-96 × 16; sporidiis distichis ellipsoideo oblongis, utrinque rotundatis, 1-septatis, leviter constrictis, atro-fuligineis, vulgo rectis, 17 × 7-8. 2332

Hab. in thallo Pertusariæ lutescentis ad truncos Tiliæ Calvarienberg, Rhön Germaniæ (Dannenberg).

MASSARIELLA Speg. — Syll. I p. 716, IX p. 739, XI p. 314, XIV p. 555, XVI p. 503.

1. **Massariella Eriophori** (Feltg.) Sacc. et D. Sacc. *Phorcys Eriophori* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 162. — Peritheciis sparsis, immersis, dein erumpentibus, globosis, papillatis, nigris, firmulis, 300–400 μ. diam.; ascis clavatis, apice rotundatis et crasse tunicatis, breve stipitatis 190-210 × 33-37, octosporis; sporidiis distichis, ellipsoideis, bicellularibus, constrictis, atro-brunneis, muco obvolutis, 40–43 × 17-20; paraphysibus constricto-septatis, ascos superantibus. 2333

Hab. in calamis Eriophori angustifolii, Luxemburg.

AMPHISPHÆRIA Ces. et De Not. — Syll. I p. 718, IX p. 741, XI p. 315, XIV p. 555, XVI p. 503.

1. **Amphisphæria Viæ-malæ** Rehm in Oest. Bot. Zeitschr. 1904, p. 81. — Peritheciis in cortice v. ligni superficie denigrata innatis, sparsis, subgregariis, globoso-conicis, papillula conoidea parvula, poro pertusis, demum basi immersis, fere sessilibus, glabris, atris, carbonaceis, 300-350 μ. diam.; ascis cylindraceis, apice rotundatis, medio septatis, haud constrictis, utraque cellula guttam magnam 2334

oleosam includente, fuscis, 8-10 × 3,5-4,5, monostichis; paraphysibus filiformibus 2 μ. cr.

Hab. ad ramulos siccos fere decorticatos Ligustri, Via mala montis Splügen, Graubünden Helvetiæ.

2. **Amphisphæria aterrima** Pat. in Duss Enum. Champ. Guadel. 1903, p. 71. — Peritheciis sparsis, subglobosis, ligno latissime nigrificato basi insculptis, ostiolo minuto papillato præditis, $^1/_3$ mm. d., carbonaceis, glabris; ascis cylindricis 160 × 15, octosporis; sporidiis monostichis fusoideis utrinque tenuatis, medio 1-septatis leniterque constrictis, biguttatis, 23 × 10, brunneis; paraphysibus copiosissimis filiformibus, ramosis. 2335

Hab. in trunco putri Richeriæ grandis, Basse-Terre Guadalupæ (Duss).

3. **Amphisphæria irregularis** Rehm, Hedw. XLIV, p. 4, fig. 4. — Peritheciis epiphyllis, sessilibus, plerumque 6-10 congestis, rarius sparsis, conoideis, glabris, poro pertusis, atris, carbonaceis, ca. 150 μ. cr.; ascis clavatis 50-60 × 12, octosporis; sporidiis clavatis, utrinque obtusis inæqualiter bicellularibus, cellula superiore $^2/_3$ breviore, ad septum non constrictis, subfuscis 12-15 × 5-6, distichis; paraphysibus? ramosis. 2336

Hab. in foliis Meliaceæ cujusdam, Blumenau Brasiliæ. — Affinis *Amph. Clusiæ;* sporidiis inæqualiter bicellularibus, ascis clavatis etc. dignoscitur.

4. **Amphisphæria Thujæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 269. — Peritheciis sparsis vel 2-3-approximatis, erumpenti-subsuperficialibus, globosis, atro-brunneis, carbonaceo-fragilibus 250-300 μ. diam., vertice applanatis rugulosis et minute papillatis; ascis clavatis vel subteretibus, apice rotundatis, longe tenuato-stipitatis 60-90 × 5,5-8, filiformi-paraphysatis 4-6-8-sporis; sporidiis, submonostichis vel subdistichis, oblongo-ellipsoideis vel demum subcylindraceis, bicellularibus, rectis curvulisve, utrinque obtusulis, medio fortiter constrictis, 4-6-guttulatis, pallide brunneo-nigricantibus, plerumque 13 × 4-5. 2337

Hab. in ramis corticatis Thujæ orientalis, Luxemburg. — *Amph. Thujæ* proxima.

5. **Amphisphæria Juniperi** Tracy et Earle, Plantæ Bakerianæ fasc. I, Fungi, p. 30. — Peritheciis sparsis, superficialibus, globosis, carbonaceis, subsparsis, 0,6 mm. circ. diam., ostiolo papillato donatis; ascis clavato-cylindraceis, breve stipitatis 100-120 × 20; paraphysibus filiformibus; sporidiis distichis, late fusiformibus, fu- 2338

ligineo-pallidis, 1-septatis, constrictis, biguttulatis, utrinque subacutis 30-35 × 10-12.

Hab. in ligno cæso Juniperi monospermæ, Mancos, Colorado Amer. bor.

6. **Amphisphæria Populi** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fungi p. 30. — Peritheciis dense sparsis, levibus, globosis, nigris, lucentibus, obscure poro pertusis, 250-300 μ. diam.; ascis cylindraceis, breve stipitatis 80-90 × 8; paraphysibus numerosis, filiformibus; sporidiis monostichis ovalibus utrinque rotundatis, fuligineis, æqualiter 1-septatis, valde constrictis, 12 × 6. 2339

Hab. in ramis decorticatis Populi angustifoliæ, Mancos, Colorado Amer. bor.

7. **Amphisphæria juglandicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 270. — Peritheciis in areis dealbatis gregariis, basi ligno insculptis, globosis, leviter depressis, brunneis vel atro-brunneis 400-600 μ. diam.; ostiolo obtuse conico; ascis cylindraceis deorsum tenuato-stipitatis 77-108 × 8, octosporis; paraphysibus filiformibus guttulatis, ascos superantibus ibique bifurcatis; sporidiis monostichis, tereti-ellipsoideis, late rotundatis, medio constricto 1-septatis, eguttatis, dilute brunneis 10-13 × 5-6. 2340

Hab. in ramis decorticatis Juglandis regiæ, Luxemburg. *Amph. salicicolæ* proxima.

8. **Amphisphæria granulosa** E. et Ev. Journ. of Mycol. 1904, p. 169. — Peritheciis erumpenti-superficialibus, globosis vel depresso-globosis, granuloso-rugulosis circ. 500 μ. diam., dense sparsis, ostiolo minuto papillato; ascis cylindraceis, breve stipitatis 65-70 × 4, obsolete paraphysatis; sporidiis monostichis, oblongis, 1-septatis, vix constrictis, pallide brunneis utrinque subattenuatis 10-12 × 3-3,5. 2341

Hab. in ligno vetusto quercino, ad terram, Lyndonville N. York Amer. bor. (C. E. Fairman).

9. **Amphisphæria applanata** (Fries) Cesati et De Notaris — Syll. I, p. 718 et IX p. 741. — var. **Alaskæ** Sacc. Harrim. Alaska Exped. Crypt. p. 30 (ut typus). — Ascis angustioribus 105-115 × 14-15; sporidiis 22-25 × 8-8,5; loculo super. (!) majori et acutiori; peritheciis 500-600 μ. diam. 2342

Hab. in ramis siccis, socia *Pirottææ yakutatiana*, Yakutat Bay Alaska (Trelease).

GAILLARDIELLA Pat. — Syll. XIV p. 559, XVI p. 507.

1. **Gaillardiella Piptocarphæ** Rehm, Hedw. XLIV (1905) fig. 3. — 2343
— Peritheciis in epiphyllo c. 5 arcte congregatis sessilibus semiglobosis, poro pertusis, glabris, membranaceis, nigro-fuscis c. 100 μ.; ascis clavatis, apice rotundatis, crasse tunicatis, 45 × 12, 8-sporis; sporidiis clavatis, utrinque obtusis, inæqualiter 2-cellularibus, cellula superiore $^2/_3$ breviore, ad septum haud constrictis, subfuscis, 10 × 4-4,5, distichis; paraphysibus filiformibus 3 μ. cr.

Hab. in foliis Piptocarphæ oblongifoliæ, Blumenau Brasiliæ (E. Ule). — Ob specimina manca dubium est an ad gen. *Gaillardiellam* pertineat species.

DIMEROSPORIOPSIS P. Henn. Hedw. 1901, p. (173) (Etym. a *Dimerosporio*, quocum habitu convenit). — Perithecia parasitica, membranacea, globoso-depressa, collabentia, setulosa, subiculo mycelico atro effuso matricis ramos deformante, conidia fusoideo-clavata 1-3-septata brunnea generante insidentia. Asci elongati, paraphysati, octospori. Sporidia oblonga v. fusoidea, 1-septata, e flavo fusca. — Hic *Dimerosporio* hinc *Neopeckiæ* affine genus.

1. **Dimerosporiopsis Engleriana** P. Henn. l. c. *Dimerosporium Englerianum* P. Henn. — Syll. XIV, p. 468.

NEOPECKIA Sacc. — Syll. IX p. 749, XI p. 317, XIV p. 558, XVI p. 506.

1. **Neopeckia argentinensis** Speg. in Ann. Soc. Cient. Arg. 1899, 2344
p. 269. — Laxe gregaria, subsuperficialis dense sordideque subcinereo-villosa; peritheciis sparsis v. laxe gregariis, ovatis, basi vix insculptis, apice obtusis, fusco-atris, membranaceis e carnoso-coriacellis, contextu fuligineo, hyphis septulatis levibus, pallide olivascentibus v. fumosis 100-150 × 5-7, crispulis, vestitis; ascis cylindraceis, sursum obtuse rotundatis, brevissime pedicellatis 125-135 × 7-8, octosporis, aparaphysatis?; sporidiis recte monostichis, cylindraceis, utrinque obtusiuscule rotundatis, 16-17 × 6, medio 1-septatis, subconstrictis, 1-guttulatis, levibus, pulchre fuligineis.

Hab. ad ramos dejectos putrescentes Erythrinæ crista-galli in insula Santiago prope La Plata Argentinæ.

DELITSCHIA Auersw. — Syll. I p. 732, IX p. 747, XI p. 317, XIV p. 558, XVI p. 506.

1. **Delitschia microspora** Oud. Hedw. 1882, vol. XXI, pag. 165. — 2345

Peritheciis et ascis non observatis; sporidiis oblongis utrinque rotundatis, septatis, vix constrictis, pallide brunneis 9-10 ≈ 3,5.

Hab. in stercore caprino prope Harlem et la Haye Hollandiæ. — Peritheciis ascisque ignotis, species omnino dubia et aptius omittenda.

2. **Delitschia vulgaris** Griff. Mem. Torr. B. Cl. 1901, p. 104, t. 14, f. 4-6. — Peritheciis sparsis, immersis, subgloboso-piriformibus, 600-750 ≈ 375-450, tenui-membranaceis e brunneo nigris, ostiolo cylindraceo, curvato, pilis parcis, septatis longiusculis vestito; ascis 8-sporis, cylindraceis apice rotundatis, breve stipitatis, 185-215 ≈ 24-27; paraphysibus filiformibus septatis ascos superantibus; sporidiis oblique monostichis, 2-cellularibus, utrinque late rotundatis profunde constrictis, 27-30 ≈ 13-16, e flavido opace atro-brunneis, strato prominenti, hyalino obductis. 2346

Hab. in fimo bovino et equino, New York, Ft. Lee, Auburn Amer. bor.

3. **Delitschia excentrica** Griff. Mem. Torr. B. Cl. 1901, pag. 101, tab. XIII, fig. 7-9. — Peritheciis sparsis, immersis, ostiolo longo cylindraceo, truncato vel rotundato, plerumque pilis brevibus septatis brunneis vestito, præditis, 750 ≈ 300-500, tenui-membranaceis, atro-brunneis, opacis; ascis octosporis cylindraceis, apice rotundatis, basi obtuse stipitatis 330-370 ≈ 34-40; paraphysibus filiformibus obsolete septatis; sporidiis ellipsoideis utrinque excentrice acutatis, oblique 1-septatis constrictisque 45-50 ≈ 21-24, e flavido atro-brunneis opacisque. 2347

Hab. in fimo bovino, Austin et Biloxi, Amer. bor. (Long, Tracy).

4. **Delitschia leporina** Griff. in Mem. Torr. B. Cl. 1901, pag. 101, tab. XIII, fig. 14-16. — Peritheciis sparsis, immersis 600-750 ≈ 500 piriformibus vel breve cylindraceis in ostiolum nigrum late truncatum rugosum et pilosum desinentibus, tenui-membranaceis, atro-brunneis, opacis; ascis octosporis clavatis, apice late rotundatis breve obtuseque stipitatis 240-295 ≈ 30-34; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis distichis ellipsoideis utrinque acutiuscule rotundatis, oblique 1-septatis profundeque constrictis 40-65 ≈ 16-20 e flavido atro-brunneo opacisque, strato hyalino prædistincto ad septum constricto. 2348

Hab. in stercore cuniculorum, Ft. Lee, N. Y. Amer. bor. 2349

5. **Delitschia apiculata** Griff. Mem. Torr. B. Club. 1901, pag. 104, tab. 13, f. 10-13. — Peritheciis semiimmersis, sparsis v. in greges

parvos confertis, 375-500 × 300-350, tenui-membranaceis, piriformibus; ostiolo papillato v. breve cylindraceo, curvato, nigro, setulis sparsis brevibus, acuminatis, brunneis 1-septatis vestito; ascis 8-sporis, clavatis, apice rotundatis longe stipitatis, 160-200 × 32-38; paraphysibus filiformibus, copiosis, indistincte septatis, ascos multo superantibus; sporidiis biseriatis, ellipsoideis, utrinque rotundatis, bicellularibus, non constrictis, 28-34 × 16-21, strato mucoso nullo præditis, sed utrinque apiculo hyalino triangulari auctis.

Hab. in caulibus Salsolæ Tragi sordibus fædatis, Aberdeen S. D. Amer. bor.

DELITSCHIELLA Sacc. n. g. (Etym. a *Delitschia*, cui affinis). — A *Delitschia* distinguitur ascis polysporis nec octosporis.

1. **Delitschiella polyspora** (Griff.) Sacc. et D. Sacc. *Delitschia polyspora* Griff. Mem. Torr. B. Cl. 1901, p. 105, tab. 14, f. 1-3. — 2350
Peritheciis sparsis, immersis, subgloboso-piriformibus, subcoriaceis, atro-brunneis opacis, 1000 × 650-750; ostiolo cylindraceo, truncato, nigro, recto v. curvulo variæ longitudinis; ascis 16-sporis, clavato-fusiformibus, apice rotundatis, breve stipitatis, 340-375 × 85-100; paraphysibus filiformibus, septatis, ascos superantibus; sporidiis tristichis vel inordinatis, ellipsoideis, vulgo utrinque rotundatis, 1-septatis, profunde constrictis, 52-62 × 21-24, e flavido opace atro-brunneis, strato mucoso hyalino ad septum constricto prominenti obvolutis.

Hab. in fimo vaccino, Tucson Ariz. Amer. bor.

OTTHIA Nke — Syll. I p. 735, IX p. 752, XI p. 317, XIV p. 560, XVI p. 507.

1. **Otthia Clematidis** Earle, Plantæ Bakerianæ fasc. II, Fungi p. 13. — 2351
Peritheciis congestis, raro sparsis, nigris, carbonaceis, rugulosis 500 μ. diam., ostiolo pertusis, subimmersis, superne e stromate nigro emergentibus, interdum crustam latam efformantibus; ascis paraphysatis, subcylindraceis 90-120 × 16-20; sporidiis irregulariter dispositis, ovalibus, utrinque subacutis, leviter constrictis, interdum curvulis, 1-septatis, brunneis 40 × 8.

Hab. in ligno emortuo Clematidis ligusticifoliæ, Durangos South Colorado Amer. bor.

2. **Otthia Distegiæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fungi p. 29. — 2352
Peritheciis in soros oblongos congestis, nigris, rugosis, ostiolo minute papillato donatis, 250 μ. diam., erumpentibus; hy-

phis subiculi fuscis; ascis octosporis, clavatis, substipitatis, circ 100 × 18; paraphysibus filiformibus; sporidiis oblique monostichis vel subdistichis, obovatis, sæpe curvulis, fuligineis, 1-septatis, paullulo constrictis, 25 × 8.

Hab. in ramulis emortuis Distegiæ involucratæ, Mancos, South Colorado, Amer. bor.

3. **Otthia fendlericola** Tracy et Earle, Plant. Bak. II, p. 14. — Peritheciis immersis, dein suberumpentibus, 6-8 usque 20 in stromate dense congestis, e mutua pressione applanatis intense brunneo-nigris, rugosis 300-600 μ. latis, depressis, ostiolo pertusis; ascis cylindraceis 100 × 18; paraphysibus filiformibus; sporidiis monostichis vel subdistichis, brunneis, fusiformibus, utrinque acutis, 1-septatis, non constrictis, 25 × 6. 2353

Hab. in ramis emortuis Fendleræ, Hermosa, South Colorado Amer. bor.

RHYNCHOSTOMA Karst. — Syll. I p. 730, IX p. 750, XI p. 317, XIV. p. 559.

1. **Rhynchostoma piriforme** Annie L. Smith, Journ. Linn. Soc. XXXV, p. 16, tab. II, f. 16-18 (extr.) — Syll. XVI p. 1135 (nomen). — Peritheciis cæspitosis, basi confluentibus, omnino superficialibus, atris, globoso-piriformibus, rostro leniter curvulo, noduloso instructis, basi circa 1 mm. latis, fere 2 mm. longis; ascis cylindraceis, breviter stipitatis, 85 μ. long.; sporidiis oblique et irregulariter monostichis, oblongo-ovatis, 1-septatis, brunneis 10 × 4. 2354

Hab. ad ligna, in ins. Dominica Indiæ occid.

HENNINGSOMYCES Sacc. n. gen. (Etym. a clariss. et sollertissimo mycologo, prof. P. Hennings, berolinensi, in studio mycetum exoticorum in primis peritissimo). — Perithecia superficialia, facile secedentia (phyllogena) globulosa, membranacea, nigra, levia, in rostellum cylindraceum tenue producta, basi hyphis brevibus, radiantibus brunneis cincta, sed subiculo destituta. Ostiolum apice fimbriatum, conidiophorum; conidiis cylindraceis fuscis 1-pluriseptatis. Asci obovati, 8-spori, aparaphysati. Sporidia ovato-oblonga, 1-septata, hyalino-fuscidula. — Ab affini gen. *Rhynchomeliola* Speg. differt subiculo nullo, ostiolis apice conidiophoris etc.

1. **Henningsomyces pulchellus** Sacc. n. sp. — Peritheciis hypophyllis, punctiformibus, hinc inde gregariis, 60-85 μ. diam., globulosis, 2355

omnino superficialibus, basi hyphis subsimplicibus, septulatis, brevissimis cinctis, nigris, contextu laxe parenchymatico, brunneo; rostello cylindrico, recto, 180-190 × 18-20 ex hyphis filiformibus, longitudinalibus, 2,5 μ. crassis, arcte conglutinatis formato, apice ex hyphis relaxatis fimbriato, conidiophoro; conidiis cylindraceis rectiusculis, 2-3-septatis, non constrictis, dilute fuscis, 22 × 3; ascis ovato-oblongis, apice rotundatis, brevissime stipitatis vel subsessilibus, 40-45 × 20-25, octosporis, aparaphysatis; sporidiis 2-3 stichis, oblongis, utrinque rotundatis, rectis curvulisve, 20-24 × 8, ex hyalino fuscidulis.

Hab. in pag. infer. foliorum languidorum Byrsonimæ sericeæ, Rio de Janeiro, Maná Brasiliæ 1899 (E. Ule). — Interdum adsunt pycnidia minuta globulosa, sporulis fusoideis curvulis, hyalinis fœta.

XYLOBOTRYUM Pat. — Syll. XI p. 319, XVI p. 510.

1. **Xylobotryum Dussii** Pat. in Duss Enum. Champ. Guadal. 1903, p. 77. — Minute cæspitulosum, 8-10 mm. long., e ramulis gracilibus, coriaceis, rugulosis, pluries divisis, intricatis, perithecio singulo v. binis terminatis; ascis longe stipitatis, 30-35 × 7-8 (p. sporif.); sporidiis oblongis, 7-9 × 3-3,5, brunneis, 1-septatis, non vel vix constrictis. 2356

Hab. ad ligna putrida, Deshaies Guadalupæ (Duss). — Habitus *Kretzschmariæ;* affine *X. andino* sed habitu, sporidiis minoribus etc. diversum.

XYLOCERAS Annie L. Smith, Journ. Linn. Soc. XXXV (1901) p. 16. Syll. XVI, pag. 1135 (nomen) (Etym. *xylo* pro xylaria et *ceras* cornu). — Est *Xylaria* phæodidyma, corniformis, simplex, subsessilis, peritheciis exsertis. — A *Xylobotryo* non satis diversum genus videtur.

1. **Xyloceras Elliotti** Annie L. Smith l. c. tab. III, fig. 1-5. — Stromatibus cæspitosis, apice attenuatis, 1 cm. altis, 1-2 mm. latis, basi et apice sterilibus; hyphis internis circa 10 μ. latis, brunneis; peritheciis subglobosis, circa 280 μ. latis; ascis cylindraceo-clavatis, stipite 42 μ. longo, basi leviter dilatata, parte sporif. 35 μ. longa; sporidiis ovatis 10 × 4; paraphysibus filiformibus. 2357

Hab. ad ligna, prope flum. Caste Bruce, Dominica Indiæ occ.

MELANCONIELLA Sacc. — Syll. I, p. 740, IX p. 753, XIV p. 560, XVI p. 509.

1. **Melanconiella leucostroma** (Niessl) Sacc. — Syll. IX, p. 754. — 2358
f. **Piri** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 119. — A typo (in Fago) recedit disco albo-cinereo; ascis clavatis (nec elliptico-oblongis) longioribus, 80-95 × 10-11 sporidiisque minoribus 15-19 × 5-6, vulgo curvulis, non appendiculatis.

Hab. in ramis siccis Piri communis, Luxemburg.

2. **Melanconiella nyssagena** Ell. et Ev. in Journ. of Mycol. 1902, 2359
vol. 8, pag. 18. — Stromatibus corticalibus circularibus, depresso-globosis, circ. 2 mm. diam., papillatis, superne erumpentibus, nigris, levibus, ostiolo rotundo præditis; peritheciis circinantibus, globosis, nigris, intus lucidis, 500 μ. diam.; sporidiis monostichis, ellipticis v. oblongo-ellipticis, 1-septatis, constrictis, olivaceo-brunneis, 30-40 × 12-20, plerumque 12-15 μ.

Hab. in ramis emortuis Nyssæ multifloræ, Newfield Americæ borealis.

VALSARIA Ces. et De Not. — Syll. I p. 741, IX p. 755, XI p. 318, XIV p. 560, XVI p. 509.

1. **Valsaria Tiliæ** De Not. Sfer. ital. p. 58, tab. 55. — Peritheciis 2360
sæpius quaterno numero fasciculatis et cortice insculptis, ovoideis v. sphæroideo-dèpressis in collum crassum productis, ostiolis truncatis angulosisque vel pyramidatis 600-750 μ. crassis, atris, nucleo pallido; ascis crasse clavatis, perfecte hyalinis, subsessilibus, apice rotundatis; paraphysibus filiformibus longioribus, guttulatis obvallatis; sporidiis monostichis, oblongis biloculatis 1-septatis, vix constrictis-badio, fuscis 42-48 × 18-20, in quoque asco 2-6.

Hab. in cortice levigato Tiliæ microphyllæ, prope Trobaso Italiæ bor. — Jam conjunxeram cum *Hercospora Tiliæ*, sed reapse, observante cl. Oudemans in Rev. Mycol. 1902, ab ea valde recedit.

2. **Valsaria Kriegeriana** Rehm in Krieger Fung. Saxon. exs. n. 1617, 2361
(1901) Hedw. 1903, pag. (159). — Stromatibus sparsis v. gregariis, minutis e basi rotundata leviter emergentibus et peridermio tectis; peritheciis in quoque stromate 4-8, circulariter dispositis, brunneo-nigricantibus 250 μ. diam., ostiolis brevibus discum brunneo-nigrum erumpentem formantibus; ascis cylindraceis longe stipitatis, octosporis, 70-90 × 5-8, p. spor. ; sporidiis ellipsoideis utrin-

que rotundatis, medio constricto 1-septatis, hyalinis, demum pallide brunneis 7-12 × 4,5-6, bi-quadri-guttatis.

Hab. in ramis siccis Sambuci nigræ prope Königstein Germaniæ (W. Krieger). — *Vals. staphylinæ* et *Vals. cornicolæ* affinis.

3. **Valsaria Magnoliæ** E. et Ev. Journ. of Mycol. 1904, p. 170. — 2362
Stromate corticali effuso, corticem interiorem nigrificante; peritheciis immersis dein semierumpentibus, intus albis 250 μ. diam., inæqualiter sparsis vel valsiformiter confertis vel seriatis, mox deciduis; ascis cylindraceis, subsessilibus paraphysatis 80-100 × 10-12, subinde 100-150 × 10-12; sporidiis oblongo-ellipsoideis, brunneis, constricto 1-septatis, 18-23 × 8-10, obliquis in ascis brevioribus, rectis in ascis longioribus.

Hab. in truncis emortuis Magnoliæ spec. cultæ, London Canada (Dearness).

4. **Valsaria** (Phæosperma) **microspora** E. Rostr. Norske Ascom. 1904, 2363
p. 23 (Vidensk. Skrift.). — Stromate effuso, endoxylo, nigro; peritheciis gregariis; ascis cylindraceis, 8-sporis; sporidiis monostichis, ovoideis v. oblongis, didymis, 7-8 × 5, fuscis, loculo altero paullo angustiore.

Hab. ad ramos Tiliæ, Ulmi, Quercus in Norvegia.

5. **Valsaria** (Phæosperma) **latitans** Sacc. in Atti congr. bot. Palermo 2364
1902, p. 52. — Peritheciis hinc inde laxe gregariis ligno supra fusco-maculoso immersis, globosis, membranaceis, 250 μ. d., ostiolo punctiformi vix perforante; contextu perithecii tenuissimo; ascis tereti-clavatis, apice rotundatis breve crasseque stipitatis, 110-140 × 20-22, octosporis; paraphysibus copiosissimis filiformibus, hyalinis; sporidiis oblique monostichis breve fusoideis, sæpius inæquilateris, utrinque obtuse tenuatis, constricto-1-septatis, grosse bi-guttatis, fuligineis, 30-36 × 10-11.

Hab. in ligno carioso salicino v. populino diu aqua immerso, Rigny sur Arroux Galliæ. — Ab affini *Valsaria cariei* ostiolo punctiformi, ascis sporidiisque majoribus videtur satis diversa.

Sect. 6. Hyalophragmiæ.

SPHÆRULINA Sacc. — Syll. II p. 186, IX p. 846, XI p. 336, XIV p. 581, XVI p. 528.

I. *Eu-Sphærulina:* in plantis phanerogamis

1. **Sphærulina Diapensiæ** Rostr. Islands Svampe in Bot. Tidsskrift, 2365
1903, vol. 25, p. 306. — Peritheciis aggregatis, minimis, innato-prominulis; ascis crasse piriformibus, apice valde incrassatis, 38-40 × 20; sporidiis cylindraceo-fusoideis, rectis v. leniter curvulis, utrinque obtusiusculis, 3-4-septatis, 4-guttulatis, 25-30 × 7-8, hyalinis.

Hab. in pedunculis, sepalis, capsulis Diapensiæ lapponicæ in Islandia.

2. **Sphærulina Epigææ** P. Henn. in Notizblatt des Kgl. bot Gart. 2366
Berl. 1900, n. 22, p. 37. — Peritheciis epiphyllis, innato-prominulis hemisphæricis, poro pertusis, atris ca. 150-180 μ. diam., in maculis fusoideis sparsis v. gregariis; ascis basi fasciculatis, curvulis, clavatis, vertice crasse tunicatis, obtusis 35-45 × 15-18, octosporis, aparaphysatis; sporidiis subdistichis, oblongis v. subfusoideis, obtusiusculis v. acutiusculis 4-guttulatis (an deinde 3-septatis?) 18 × 4, hyalinis.

Hab. in foliis emortuis Epigææ repentis, in horto botanico Berolinensi Germaniæ.

3. **Sphærulina Oxalidis** Rehm, Ann. Mycol. 1904, p. 177. — Perithe- 2367
ciis gregariis, sub peridermio plus minusve denigrato et hemisphærice elevato nidulantibus, globosis, glabris, papillula conoidea tenui subprominente, parenchymatice contextis, fuscis 0,25 mm. diam; ascis elongato-subfusiformibus, vix stipitatis 40-45 × 9 octosporis; sporidiis fusoideis, rectis, 3-septatis, hyalinis 10-12 × 2,5-3 distichis; paraphysibus nullis.

Hab. ad caules emortuos Oxalidis strictæ, Texas Americæ borealis.

4. **Sphærulina Pruni** Mc. Alp. Fungus Stone-fr. trees diseases, Melb. 2368
1902, p. 113, fig. 173-175. — Peritheciis minutis, nigris, punctiformibus, sparsis vel subcongestis, erumpentibus, globosis, membranaceis, 120 μ. diam., ostiolo papillatis; ascis breve stipitatis, oblongis, octosporis, aparaphysatis 45-50 × 10; sporidiis distichis, hyalinis oblongo-ovatis, rectis, 3-septatis, ad septa non constrictis, 15-16 × 4,5-5.

Hab. in ramulis emortuis Amygdali communis, Myrniong Victoria Australiæ. — *Sph. intermixtæ* Sacc. affinis.

5. **Sphærulina Spartii** v. Höhn, Ann. Myc. 1904, p. 43. — Ramicola; 2369

peritheciis gregariis, tectis, nigris, globulosis, 100–120 μ. latis, ostiolis 15–20 μ. latis, obsolete papillatis instructis; tunica crasse membranacea, atro-brunnea, contextu celluloso; ascis late clavatis, crassiuscule tunicatis, obtusis, subsessilibus, octosporis, 50–65 × 10–11, aparaphysatis; sporidiis di-tristichis, hyalinis, bacillaribus, rectis vel subcurvulis, utrinque rotundatis, triseptatis, 18–35 × $2^1/_2$-4.

Hab. in ramulis siccis Spartii juncei ad Selenika Dalmatiæ. — An sporidia normalia varient longitudine a 18 ad 35 μ. vere dubitandum!

6. **Sphærulina Sacchari** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2370 p. 62. — Maculis rotundatis v. oblongis confluentibusque pallidis exaridis, zona rufo-brunnea cingulatis; peritheciis hypophyllis sparsis vel gregariis punctiformibus, immersis, dein erumpentibus, fusco-membranaceis, poro pertusis, 80–100 μ. diam.; ascis fasciculatis, aparaphysatis, clavatis, obtuse rotundatis, basi breve pedicellatis, 8-sporis, 50–65 × 12–14; sporidiis oblique monostichis vel subdistichis, oblonge fusoideis vel clavatis, 3-septatis, constrictiusculis, 4-guttulatis, hyalinis, 15–20 × $3^1/_2$-4.

Hab. in foliis Sacchari officinarum culti, Leticia, Rio Amazonas, Perù.

7. **Sphærulina microthyrioides** Rehm Hedw. XLIV. — Peritheciis ple- 2371 rumque hypophyllis, sessilibus, subgregariis, lenticularibus, poro pertusis, glabris, parenchymatice fusce contextis, nigris, 120–150 μ. diam.; ascis subglobosis, 25–30 μ. diam., 8-sporis; sporidiis ellipsoideis, interdum subcurvatis, 3-septatis, hyalinis, 12 × 4; paraphysibus hyalinis, ? ramosis.

Hab. in foliis graminis; Blumenau Brasiliæ (E. Ule). — Vix visibilis; perithecia non erumpentia, paraphyses distinctæ; tamen nonnisi ad *Sphærulinæ* genus species spectare videtur.

8. **Sphærulina Maydis** Henn. in Hedw. 1902, pag. 302. — Maculis 2372 rotundatis, angulatis, pallidis, exaridis, zona brunneola cinctis; peritheciis gregarie sparsis, epidermide tectis, globosis, dein vertice erumpentibus, flavo-brunneis, membranaceo-cellulosis, ca. 60–80; ascis clavatis, apice rotundato-tunicatis, basi attenuato-curvatis, octosporis 40–55 × 10–14; sporidiis distichis, fusoideis vel clavatis, 3-septatis, paullo constrictis, 10–16 × 3,5, hyalinis.

Hab. in foliis Zeæ Maydis in horto botanico S. Paulo Brasiliæ.

II. *Pharcidiella* Sacc.: species lichenicolæ *).

9. **Sphærulina endococcoidea** (Nyl.) Sacc. et D. Sacc. *Verrucaria endococcoidea* Nyl. Flora 1865, p. 356. — Peritheciis semiimmersis, 3273
nigris 120-160 μ. diam., supra convexulis; ascis aparaphysatis, jodo rubro-tinctis, octosporis; sporidiis ellipsoideo-oblongis, 3-septatis, 16-18 × 6-7, hyalinis.

Hab. in thallo Rhizocarpi excentrici in Ben Lawers Scotiæ.

10. **Sphærulina Amphilomatis** (Jatta) Sacc. et D. Sacc. *Arthopyrenia Amphilomatis* Jatta Lich. Ital. merid. 1889, pag. 206, *Cyrtidula* 3274
Amphilomatis Jatta Syll. Lich. ital. p. 496. — Peritheciis immersis, minutissimis, atris; ascis cylindraceis octosporis; sporidiis cuneiformibus, 1-3-septatis, 4-guttulatis, uno apice tenuatis, curvulis, 15-18 × 5-6; paraphysibus obsoletis.

Hab. in thallo Gasparriniæ murorum in Italia centr. et merid.

METASPHÆRIA Sacc. — Syll. II p. 156, IX p. 825, XI p. 333, XIV p. 582, XVI p. 529.

I. *Eu-Metasphæria:* in plantis vascularibus.

1. **Metasphæria ocellata** (Niessl) Sacc. — Syll. II p. 157. — f. **Hircini** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 224. 3275
— A typo recedit ascis majoribus, crassius clavatis et longius stipitatis 90-108 × 11-14, nec non sporidiis submonostichis et paraphysibus ramosis constricto-septatis.

Hab. in caulibus siccis Hyperici hircini, Luxemburg.

2. **Metasphæria Hyperici** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 3276
1903, p. 239. — Peritheciis sparsis, immersis, papilla minutissima, tantum emergentibus, nigris; ascis tereti-clavatis, breve stipitatis 91 × 7-8; sporidiis 1-distichis, fusiformibus, utrinque obtusulis, rectis curvulisve, 3-septatis, medio profunde constrictis, 4-guttatis et minute utrinque 1-guttulatis, hyalinis, 21 × 5.

Hab. in caulibus siccis Hyperici hircini, Luxemburg.

3. **Metasphæria Magnoliæ** (Almeid. et S. Cam.) Sacc. *Sporoctomorpha Magnoliæ* Alm. et S. Cam. in Revista Agronomica de Portugal, 3277

*) Huc ducendæ sunt species hyalophragmiæ *Pharcidiæ*. jam descriptæ nempe. *Sphærulina* (Pharcidiella) *Schæreri* (Mass.) Sacc. *S. parvipuncta* (Stein) Sacc., *S. Arthoniæ* (Arn.) Sacc. — Syll. IX, p. 676 (omnes species sub *Pharcidia*).

1903, n. 3, pag. 90, tab. IX, fig. 4-6. — Peritheciis epiphyllis, glubulosis, atris, poro pertusis 150-200 μ. diam.; ascis obclavatis, substipitatis, octosporis 85-90 × 17-20; paraphysibus numerosissimis, longiusculis, acicularibus; sporidiis distichis octoformibus, 3-septatis, utrinque rotundatis, in partes inæquales septo medio valde constricto divisis 18-20 × 6-7,5, hyalinis.

Hab. ad folia Magnoliæ spec., Bemfica prope Lisboa Lusitaniæ (C. Jelesias Vianna). — Gen. *Sporoctomorpha* Alm. et Cam. non satis differt a *Metasphæria*, immo *Met. papulosa* et *anisometra* paraffines videntur.

4. **Metasphæria Angelicæ** Rostr. Islands Svampe in Bot. Tidsskrift 2378
1903, vol. 25, p. 306. — Peritheciis gregariis, erumpentibus, globoso-depressis, 300 μ. diam.; ascis cylindraceis, paraphysatis 115-130 × 10-12; sporidiis oblique monostichis, oblongo-fusoideis, hyalinis, 3-septatis, loculo subultimo crassiore, rectis vel curvulis, 20-22 × 6-8.

Hab. in caulibus siccis Angelicæ silvestris in Islandia.

5. **Metasphæria Hederæ** (Sow.) Sacc. — Syll. II, p. 169. — f. **cor-** 2379
ticola Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 232. — A typo foliicolo vix differt peritheciis atro-brunneis, ascis varie flexis 70-80 × 13-15; sporidiis medio fortiter constrictis, paullo crassioribus, 18-21 × 5-6, maturis dilute flavidis.

Hab. in cortice ramorum Hederæ Helicis, Luxemburg.

6. **Metasphæria acerina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2380
1903, p. 228. — Peritheciis epidermide omnino tectis, papilla minuta depressa erumpentibus, lenticularibus, 500 μ. diam., nigris; ascis clavatis, stipitatis, paraphysibus filiformibus, ramosis superantibus copiose obvallatis, 120-140 × 17-20, octosporis; sporidiis 1-2-stichis, elliptico-fusoideis, obtusis, medio constricto-1-septatis, loculis biguttulatis tenuiterque 1-septatis, crasse tunicatis 20-26 × 7-8,5.

Hab. in ramis corticatis Aceris campestris, Luxemburg. — *Met. vulgari* proxime affinis, sed perithecia majora etc.

7. **Metasphæria errabunda** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2381
1903, p. 235. — Peritheciis sparsis vel gregariis, hemisphæricis, cortice innato-subsuperficialibus 70-150 μ. diam., nigris, papilla tenuissima præditis; ascis fasciculatis, crasse fusoideis, brevi et crasse stipitatis, octosporis 55-75 × 10-12, paraphysibus superantibus, filiformibus obvallatis; sporidiis 1-2-stichis, fusiformibus ob-

tusiusculis, subrectis 3-septatis, non constrictis, 4- vel pluri-guttulatis, hyalinis 16–22 × 3–5.

Hab. in cortice sicco ramorum Buxi sempervirentis, Thujæ orientalis et Ilicis Aquifolii, Luxemburg. — *Metasph. Ferulæ* et *Met. Bambusæ* affinis. Sporidia subinde dilute flavida.

8. **Metasphæria epidermidis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2382
III, 1903, p. 230. — Peritheciis gregariis, epidermide nidulantibus et cuticula atrata tectis, hemisphæricis, nigro-brunneis, 100–200 μ. diam., papilla obsoleta; ascis fasciculatis, fusoideis, stipitiformi-attenuatis, octosporis 44–68 × 7-10, filiformi-paraphysatis octosporis; sporidiis 2-3-stichis, tereti-ellipsoideis, utrinque obtusis, rectis curvulisve, crasse 4-guttatis (an demum septatis?) non constrictis, hyalinis, 16–18 × 3,5–5.

Hab. in cortice Rhamni Frangulæ, Luxemburg. — *Met. corticolæ, depressæ* etc. affinis.

9. **Metasphæria Ulicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2383
1903, p. 234. — Peritheciis sparsis, omnino immersis v. vertice obtuse papillato emergentibus, subinde longiuscule cylindrico-papillatis, globosis, nigris, 250-350 μ. diam.; ascis tereti-clavatis, tenui- et incurvo-stipitatis, octosporis, paraphysatis 150 × 10; sporidiis distichis, elliptico-fusoideis, obtusis, curvulis, triseptatis, ad septa, præcipue medium, fortiter constrictis 4–6-guttulatis, 22-27 × 5,5-8.

Hab. in ramis corticatis Ulicis europæi, Luxemburg. — *Metasph. sepincolæ* affinis.

10. **Metasphæria Comari** P. Henn. Hedw. 1903, p. 218. — Perithe- 2384
ciis subcutaneis, sparsis, dein epidermide rimosa vertice suberumpentibus, hemisphæricis, obtuse, ostiolatis, atris; ascis cylindraceo-subfusoideis vel subclavatis, apice obtusis, octosporis, 70-90 × 7-9, paraphysibus copiosis, filiformibus, septatis, ca. 2 μ. cr., hyalinis; sporidiis distichis v. oblique monostichis, oblonge fusoideis, rectis v. subcurvulis, utrinque acutis, primo 4-guttulatis, dein 1- deinde 3-septatis, ad septa, præcipue medium constrictis, hyalinis, 18–23 × 4–5.

Hab. in caulibus emortuis Comari palustris in horto botanico Berolini Germaniæ.

11. **Metasphæria Opulastri** Clements in Bull. of the Torr. Bot. Cl. 2385
1903, p. 34. — Peritheciis sparsis, erumpentibus, nudis, globosis, vix ostiolatis, brunneis, 250-300 μ.; ascis octosporis, clavatis, jodo

non cærulescentibus, 60-75 × 10; paraphysibus clavulatis, hyalinis 2-3 μ. lat. ad apicem; sporidiis fusiformibus, acutis, plerumque 3-septatis, rectis vel curvulis, hyalinis, 22-25 × 3-4.

Hab. ad ramulos vetustos Opulastri monogynæ, Minehaha Amer. bor.

12. **Metasphæria Carveri** Ell. et Ev. in Journ. of Mycol. 1902, p. 68. 2386
— Peritheciis dense sparsis vel gregariis, raro cæspitoso-congestis, suberumpentibus, generaliter epidermide velatis, depresso-hemiphæricis, in sicco collapsis 120-200 μ. diam.; ascis oblongis, brevestipitatis 50-55 × 8-12; paraphysibus evanescentibus; sporidiis distichis, oblongo-cylindraceis, parce curvatis, hyalinis 15-20 × 4-5, utrinque obtusis, granulosis 3-4-nucleatis (dein 2-3-septatis?).

Hab. in ramis emortuis Sesami orientalis, Glycines hispidæ, Cassiæ Toræ et Mucunæ utilis, Alabama Amer. — Habitus fere *Vermiculariæ*.

13. **Metasphæria vulgaris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2387
II, p. 168, et III, p. 225. — Peritheciis gregariis, globoso-depressis, tectis 300-400 μ. diam., ostiolo papillato erumpente; ascis clavatis 70-115 × 10-14; sporidiis distichis, crasse fusoideis, utrinque rotundatis, triseptatis, ad septum medium fortiter constrictis, 4-guttatis, hyalinis 15-18 × 5, cellula secunda crassiore; paraphysibus filiformibus ascum superantibus.

Hab. in ramis corticatis Aceris campestris, Platani orientalis, Cratægi Oxyacanthæ, Syringæ vulgaris, Populi italicæ, Pruni Padi, Viburni Opuli, Tiliæ, Rubi, Corni, Fagi et Alni, Luxemburg. — Affinis *Met. sepincolæ* sed peritheciis distincte papillatis, ascis sporidiisque minoribus satis distincta.

14. **Metasphæria Jaceæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2388
1903, p. 239. — Peritheciis gregariis v. sparsis, subcutaneo-erumpentibus, globoso-depressis 200-300 μ. diam., atro-brunneis, ostiolo minuto, conico; ascis clavatis, breve stipitatis, subinde cylindraceis longe stipitatis, filiformi-paraphysatis, 6-8-sporis, 90-110 × 13-16; sporidiis 1-2-stichis, oblongo-ovoideis vel subclavatis, rectis curvulisve, 4-septatis, constrictis obtusis, medietate inferiori angustiore et longiore 1-2-septata, hyalinis v. tandem dilutissime brunneolis, minute guttulatis, 22-27 × 5,5-7.

Hab. in caulibus siccis Centaureæ Jaceæ, Luxemburg. — Perithecia quædam vertice setulosa et sporidia brunneola: an species diversa?

15. **Metasphæria Petasitidis** Feltg. Vorstud. Vorst. Pilz. Luxemb. Nachtr. III, p. 238. — Peritheciis epidermide innatis et per cuticulam conspicuis, demum subliberis, globoso-depressis, ostiolo breviter cylindraceo emergente; ascis . . . . non visis; sporidiis obtuse fusiformibus, rectis curvulisve, medio constricto-1-septatis, plerumque 4-guttulatis et tandem 3-septatis, hyalinis, 18-24 × 5-5,5. 2389

Hab. in petiolis siccis Petasitidis officinalis, Luxemburg.

16. **Metasphæria Silphii** Ell. et Ev. in Journ. of Mycol. 1903, p. 167. — Perithociis gregariis, subcuticularibus, ovatis, rugulosis, ostiolo papillatis, dein collapsis, cyathiformibus, 150–200 μ. diam.; ascis cylindraceis vel clavato-cylindraceis 45-55 × 6-7, subpedicellatis, paraphysatis; sporidiis distichis, fusoideo-oblongis 2-3-septatis, ad septa constrictis, 12-16 × 3,5-4, subbrunneis. 2390

Hab. in caulibus emortuis Silphii integrifolii, Rooks Co., Kansas Amer. bor.

17. **Metasphæria sanguinea** Ell. et Ev. in Journ. of Myc. 1902, p. 68. — Peritheciis subcuticularibus, sparsis vel 2-3 congestis, membranaceis, dein collabentibus circ. 200 μ. diam., sanguineo-rubescentibus, ostiolo papilliformi donatis; ascis clavato-cylindraceis 50-70 × 7-8, paraphysatis; sporidiis (raro monostichis) distichis constricto-ellipticis vel subfusoideis, hyalinis 4-nucleatis, 3-septatis, 15-18 × 14. 2391

Hab. in caulibus emortuis Helenii tenuifolii, Alabama Amer.

18. **Metasphæria Cirsii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 239. — Peritheciis gregariis vel sparsis, immersis, globoso-depressis, 100-200 μ. diam., nigris, papilla globulosa emergente; ascis cylindraceis breve stipitatis 122-136 × 7-8; paraphysibus filiformibus, superatis, octosporis; sporidiis monostichis, filiformibus, obtusis, rectis vel curvulis, 3-septatis, septo medio evidentiore ibique constrictis, hyalinis, 6-guttulatis, 21-26 × 5-6. 2392

Hab. in caulibus siccis Cirsii arvensis, Luxemburg. — Præcipue ascis anguste cylindraceis distinguenda species.

19. **Metasphæria Petrææ** Pat. in Duss Enum. Champ. Guadel. 1903, p. 71. — Peritheciis solitariis, sparsis, punctiformibus, nigris, cellulosis, molliusculis, sub cute dein radiatim fissa nidulantibus; ascis cylindraceis, in stipitem attenuatis, 105 × 10, octosporis, filiformi-paraphysatis; sporidiis fusoideis, rectis, incoloribus, medio constrictis, utrinque acutatis, obscure 1-septatis et 6-8-guttulatis, 20 × 6. 2393

Hab. in foliis emortuis Petrææ volubilis, Ravine-Souflée

Guadalupæ (Duss). — Subinde sporidia sunt medio inflatula. Jodi ops nulla.

20. **Metasphæria Liriodendri** Pass. — Syll. IX, p. 831. — f. **Catalpæ** Feltg Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 233. — A typo differt peridermio non elevato; ascis paullo crassioribus et valde ludibundis, 80-124 × 10-14; sporidiis 19-23 × 4-5. 2394

Hab. in ramis corticatis Bignoniæ Catalpæ, Luxemburg. — A *Metasph. vulgari* differt sporidiis angustioribus, nempe 4-5 μ. nec 5-7 μ. cr.

21. **Metasphæria depressa** (Fuck.) Sacc. — Syll. II, pag. 166. — f. **caulium** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 225. — A typo differt præter matricem, peritheciis atro-brunneis; ascis angustioribus 120-125 × 8-10 et sporidiis quoque angustioribus 19-22 × 5,5. 2395

Hab. in caulibus siccis Origani vulgaris, Luxemburg.

22. **Metasphæria Nicolai** (Bubák) Sacc. et D. Sacc. *Leptosphæria Nicolai* Bubák, Pilzfl. Montenegr. 1903, p. 10. — Peritheciis cortice nidulantibus, minutis, membranaceis, nigris, poro minuto pertusis, 50-100 μ. diam., contextu subparenchymatico; ascis clavatis, curvulis, 50-80 × 15, octosporis; paraphysibus filiformibus, 80 μ. long. hyalinis; sporidiis breve cylindraceis, utrinque rotundatis, 17,5 × 6,5, hyalinis, 4- raro 3-septatis, distichis. 2396

Hab. in caulibus Salviæ officinalis anni præcedentis, Bukovice pr. Cetinje, Montenegro. — A *M. Salviæ* omnino diversa.

23. **Metasphæria Ipomœæ** Ell. et Ev. in Journ. of Mycol. 1902, p. 68. — Peritheciis sparsis v. 2-3 congestis, subcuticularibus dein erumpentibus, generaliter collapsis 250-300 μ. diam., ostiolo papillato præditis; ascis clavatis, breve stipitatis 75-90 × 10-14; paraphysibus filiformibus; sporidiis monostichis vel distichis, elongato-ovatis vel late fusoideo-clavatis, 3-4-septatis, ad septa constrictis, pænultimo septo valde constrictis, 15-25 × 8-12. 2397

Hab. in caulibus emortuis Ipomœæ, Alabama Americæ. — Ab affini *M. Kali* (Fabr.) Sacc. differt præcipue peritheciis congestis. 2398

24. **Metasphæria Mezerei** Feltg Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 232. — Peritheciis gregariis v. sparsis, epidermide tectis hemisphærico-lenticularibus, nigris, 150-200 μ. diam. papilla minutissima emergentibus; ascis breve et crasse clavatis, subsessilibus, octosporis, 60-70 × 19-22, filiformi-paraphysatis; sporidiis 2-3-stichis, oblongo-ellipsoideis, utrinque rotundatis, rectis, constricto-

3-septatis, hyalinis, minute guttulatis, 19-22 × 5-6, zona mucosa 2-3 μ. crassa sæpius obductis, cellula secunda crassiore.

Hab. in cortice emortuo Daphnes Mezerei, Luxemburg.

25. **Metasphæria empetricola** Rostr. Islands Svampe in Bot. Tidss- 2399
krift 1903, vol. 25, p. 306. — Peritheciis lignicolis, majusculis, sphæroideis; ascis cylindraceis; sporidiis fusoideo-oblongis, inæquilateralibus, 3-4-septatis, 25-28 × 6-7, hyalinis vel dilute flavis.

Hab. in caulibus Empetri nigri in Islandia.

26. **Metasphæria Periclymeni** Feltg. Vorstud. Pilz. Luxemb. 1901, 2400
Nachtr. II, p. 168. — Peritheciis sparsis, minutissimis, vix 100 μ. diam., omnino immersis, ostiolo tantum emergente papilliformi; ascis tereti-clavatis 54-74 × 5-7, octosporis; sporidiis mono-distichis, fusiformibus, utrinque acutis, vulgo curvulis 3-septatis, ad septum medium constrictis, 17-19 × 2,5-3, hyalinis.

Hab. in ramis siccis corticatis Loniceræ Periclymeni, Luxemburg.

27. **Metasphæria lentiformis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2401
III, 1903, p. 230. — Peritheciis gregariis, epidermide tectis vertice papillulato emergentibus, globoso-depressis, nigris, 100-200 μ. diam ; ascis late clavatis vel subfusoideis, breve stipitatis 55-70 × 10-15, subinde 80 × 8, filiformi-paraphysatis 8-sporis; sporidiis distichis vel medio tetrastichis, oblongo-ellipsoideis vel subcuneiformibus, obtusis, rectis curvulisve 3-septatis, non constrictis, granulosis, hyalinis, 16-20 × 5,5-7.

Hab. in cortice sicco Viburni Opuli, Luxemburg. — Affinis *Metasphæriæ peridermii.*

28. **Metasphæria sambucina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2402
1903, p. 227. — Peritheciis subsolitariis vel hinc inde confertis, innato-erumpentibus et vertice lato emergentibus v. ostiolo brevi conico, nitido præditis, globoso-ellipsoideis, lignum nigrificantibus, subcarbonaceis 200 μ. diam.; ascis fasciculatis, tereti-clavatis, breve stipitatis, octosporis, 85-112 × 8,5-10, breve paraphysatis; sporidiis monostichis vel medio distichis, cylindraceo-ellipsoideis vel subfusoideis, utrinque obtusis 1-3-septatis, 2-4-guttulatis, 15-20 × 5-6, hyalinis.

Hab. in ramis corticatis, putridis Sambuci racemosæ, Luxemburg. — Ob paraphyses parcissimas, an potius *Sphærulinæ* species?

29. **Metasphæria conorum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2403
1903, p. 237. — Peritheciis solitariis vel gregariis, maculis brun-

neis insertis, hemisphæricis, cortice innatis, nigris, 300-500 μ. diam. minute papillatis; ascis tereti-clavatis vel fusoideis, apice obtusulis, breve stipitatis, 80-98 × 5,5-9 octosporis; sporidiis 1-2-stichis, fusiformibus, utrinque rotundatis, rectis curvulisve, pluri-(3-5)-guttulatis (an demum septatis?), non constrictis, hyalinis 17,5-22 × 6-7; paraphysibus filiformibus.

Hab. in squamis conorum Abietis excelsæ, Luxemburg. — Proxime affinis *Metasph. Cyparissiæ* Pass.

30. **Metasphæria nigrovelata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 229. — Peritheciis globoso-lenticularibus, cortice interiore nidulantibus et epidermide atrata tectis, dein erumpentibus, atro-brunneis 100-250 μ. diam., papilla obsoleta; ascis clavatis, longiuscule stipitatis 62 × 8 octosporis; sporidiis subdistichis, oblongo-fusoideis, obtusiusculis, rectis curvulisve, 3-septatis non v. vix constrictis, hyalinis, minute pluriguttulatis, 16-22 × 2,7-4; paraphysibus filiformibus ascos superantibus. 2404

Hab in cortice sicco Carpini Betuli, Luxemburg. — Affinis *Met. corticolæ*. Sporidia subinde parte superiore incrassata.

31. **Metasphæria Coryli** Celotti — Syll. IX, p. 835. — **f. quercina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 238. — A typo differt ascis majoribus, magis cylindricis, 90-125 × 10-14. 2405

Hab. in ramis corticatis quercinis, Luxemburg. — f. **Juglandis** Feltg. l. c. p. 234: a præcedente var. differt peritheciis majoribus 0-5-1 mm. diam., vertice verruciformibus; ascis paullo crassioribus, et sporidiis muco obvolutis. — In ramis corticatis Juglandis regiæ, Luxemburg.

32. **Metasphæria cavernosa** (E. et. E.) Sacc. — Syll. IX, p. 833. — 2406
f. **Salicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 234. — A typo differt peritheciis minoribus 200-300 μ. diam. et sporidiis 1-septatis, 4-guttatis, nec plasmate 3-partito.

Hab. in ramis corticatis Salicis spec., Luxemburg. — Asci 100-150 × 10-14; sporidia 19-22 × 8.

33. **Metasphæria corticola** (Fuck.) Sacc. — Syll. II, pag. 166. — f. 2407
alnicola Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 231. — A typo recedit matrice superficie denigrata; ascis longe cylindraceis 6-8-sporis, 108-168 × 8-10; sporidiis tereti-oblongis, rectis 20-23 × 5,5-7.

Hab. in ramis corticatis Alni glutinosæ, Luxemburg.

34. **Metasphæria chætostroma** Sacc. — Syll. II, pag. 165. — var. 2408
Urticæ Rehm, Bot. Zeitschr. 1903, p. 10. — A typo differt se-

tulis vix 30 μ. longis, prope verticem sitis; ascis 80–90 × 10-12; sporidiis 18–20 × 5, vulgo utrinque appendicula brevi auctis.

Hab. in caulibus siccis Urticæ dioicæ in Tirolia.

35. **Metasphæria Senecionis** (Fuck.) Sacc. — Syll. II, p. 158. — f. **Urticæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 238. — A typo differt ascis brevioribus et latioribus, 95-108 × 16–19, magis clavatis et matrice atrata. 2409

Hab. in caulibus corticatis Urticæ, Luxemburg. — Sporidia 20-28 × 5–6, cellula secunda crassiore.

36. **Metasphæria Washingtoniæ** Earle in New York Bot. Gard. 1902, p. 347. — Peritheciis dense gregariis in maculis magnis insidentibus vel 2–3 lineari-confluentibus, subcutaneis dein erumpentibus, nigris, subsphæroideis, 150 μ. diam.; contextu albido; ostiolo obscuro; ascis subcylindraceis 70 × 12; paraphysibus 2 μ. cr., superne ramosis; sporidiis distichis, hyalinis, valde constrictis, 3- vel 4-septatis, 20 × 4. 2410

Hab. in foliis emortuis Washingtoniæ, Stanford University Californiæ.

37. **Metasphæria Araceæ** P. Henn. Fungi Amaz. II, p. 243. — Maculis fuscidulis, rotundato-angulatis v. effusis; peritheciis hypophyllis, sparsis, tectis dein suberumpentibus membranaceis, subglobosis, atris, ca. 150–200 μ.; ascis clavatis, obtuse rotundatis, 8-sporis, 60-70 × 6–7, paraphysibus filiformibus, ca. 1–1 $^1/_2$ μ. crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoideis, subacutis, primo 1-, dein 3-septatis, haud constrictis, 20–24 × 4–4 $^1/_2$, hyalinis. 2411

Hab. in foliis Araceæ cujusdam, Juruá-Miry Brasiliæ.

38. **Metasphæria Bellynckii** (West.) Sacc. — Syll. II, p. 178. — var. **maculans** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 241. — A typo differt matrice atro-maculata; ascis paullo longioribus, 70-120 × 8–9 et loculo secundo sporidiorum paullo crassiore. 2412

Hab. in caulibus siccis Polygonati vulgaris, Luxemburg.

39. **Metasphæria juncina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 243. — Peritheciis sparsis, immersis, globoso-depressis, 100-200 μ. diam. ostiolo minuto, conoideo erumpentibus; ascis late clavatis, obtusis, breve stipitatis 92-120 × 13–15, paraphysibus filiformibus, subinde furcatis, obvallatis, 6-8-sporis; sporidiis 2–3-stichis, fusiformibus, obtusis, rectis curvulisve 6-septatis, 7-guttulatis, ad septa constrictis, hyalinis 27–33 × 5,5–6, cellula tertia vel quarta paullo crassiore. 2413

Hab. in calamis siccis Junci effusi, Luxemburg. -- ***Metasph. Funckiæ*** proxime affinis.

40. **Metasphæria Luzulæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 244. — Peritheciis gregariis, epidermide parum elevata tectis, globoso-depressis, ostiolo acuto vel obtusulo erumpentibus 200-250 μ. diam.; ascis cylindraceis, breve stipitatis, filiformi-paraphysatis, octosporis 102-115 × 7,5-10; sporidiis 1-2-stichis, oblongo-fusoideis, obtusiusculis, vulgo curvulis, 8-guttulatis, medio constrictis (an serius 8-cellularibus) hyalinis, 33-38 × 5-5,3. 2414

Hab. in calamis siccis Luzulæ maximæ, Luxemburg. - Affinis *Metasphæriæ Oryzæ.*

41. **Metasphæria Scirpi** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 170, *Metasphæria* spec. Feltg. Vorst. Pilz. Luxemb. 1889, I, p. 267, n. 815. — Peritheciis sparsis, immersis, globosis, nigris, papilla verruciformi emergentibus; ascis tereti-fusoideis, longiuscule stipitatis, octosporis, 100-120 × 7-9, p. spor. 75-90 μ. long.; sporidiis mono-distichis, fusiformibus, obtusulis, rectis 18-25 × 3, 5-4,5 quadriguttulatis vel plasmate 4-partito, hyalinis, subinde muco obvolutis. 2415

Hab. in calamis siccis Scirpi lacustris, Luxemburg.

42. **Metasphæria biseptata** E. Rostr. Norske Ascom. 1904, pag. 24, (Vidensk. Skrift.). — Peritheciis minutis, intus albidis in maculis lanceolatis pallidis insidentibus, epidermide tectis; ascis crasse cylindraceis, 85-95 × 15-16; sporidiis distichis, inæqualiter obovatis, biseptatis, loculo ultimo inferiore duplo longiore et crassiore. 2416

Hab. in foliis Caricis vesicariæ, As Norvegiæ (Werenskjold).

43. **Metasphæria subseriata** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 17. — Peritheciis epidermide nigrificata velatis, depresso-globosis 350-500 μ. diam. sparsis vel seriatis, ostiolo papilliformi præditis; ascis cylindraceis, sessilibus, obscuro paraphysatis 60-75 × 6-7, curvulis; sporidiis distichis, fusoideo-curvulis, 1-3-septatis, non constrictis, luteo-hyalinis, 30-35 × 2,5-3, sæpius septis 1- v. 2 longitudinalibus præditis. 2417

Hab. in culmis Panici virgati, Rooks County, Kansas Amer. bor. (E. Bartholomew).

44. **Metasphæria acute-conoidea** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 169, *Metasphæria* sp. n. 814, Feltg. Vorst. Lux. I, 1899, p. 262. — Peritheciis sparsis, innatis, globoso-conoideis ostiolo acuto erumpentibus; ascis clavatis, crasse et breve stipitatis 190- 2418

200 × 10-13, 4-8-sporis . . . . ; sporidiis subdistichis, 6-cellularibus guttulatisque, 47-57 × 8-10,5, constrictis, hyalinis.

Hab. in rhizomatibus Phragmitis communis et ?Scirpi lacustris, Luxemburg. — A *Trematosphæria heterospora* omnino diversa.

45. **Metasphæria oxyspora** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2419
II, pag. 171. — *Metasphæria* spec. n. 817 Feltg. Vorstud. Pilz. Luxemb. I, 1899, I, p. 268. — Peritheciis dense sparsis, innatis, ostiolo papilliformi emergentibus, globoso-depressis; ascis tereticlavatis, longiuscule stipitatis, octosporis, 90-105 × 8-10; sporidiis distichis, anguste fusoideis, acutis rectis curvulisve, 3-5-septatis, non constrictis, hyalinis 27-30 × 3,5, 4,5-pluriguttulatis.

Hab. in culmis Phalaridis arundinaceæ, Luxemburg. — Affinis *Met. Lolii.*

46. **Metasphæria Phalaridis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2420
III, 1903, p. 243. — Peritheciis sparsis, omnino immersis, globosis 100-150 μ. diam., ostiolo obtuse conoideo; ascis cylindraceis, breve stipitatis, 110-135 × 8-9 octosporis; sporidiis mono-distichis, elliptico-fusoideis, obtusis rectis, constricto 1-septatis, 4-guttulatis, 19-22 × 5-6.

Hab. in culmis siccis Phalaridis arundinaceæ, Luxemburg. — Affinis *Met. vulgari.* Sporidia ambitu torulosa.

47. **Metasphæria Polystichi** Feltg. Vorstud. Pilz. Luxemb. 1901, 2421
Nachtr. II, p. 171. — Peritheciis gregariis, immersis, vertice papillato, prominulo tantum emergente, epidermide immutata tectis, globoso-depressis, atris, 100-200 μ. diam.; ascis clavatis tenuiter stipitatis, copiose filiformi-paraphysatis 78-99 × 6-8; sporidiis distichis, ellipsoideis vel subcylindrico-fusoideis, rectis curvulisve, 4-guttulatis, 4-locularibus, 8-11 × 2,5-3,5, hyalinis.

Hab. in petiolis Polystichi Filicis-maris, Luxemburg.

II. *Sagediopsis* Sacc. Species lichenicolæ, parasiticæ.

48. **Metasphæria Körberi** (Stein) Schröt. Pilzfl. Schles. II, pag. 355, 2422
Leptorrhaphis Körberi Stein Flecht. Schles. p. 350, *Leptosphæria Körberi* (Stein) Wint. Pilzfl. II, p. 443. — Peritheciis primo immersis, demum subsuperficialibus, globosis, ostiolo profunde impresso, 0,1 mm. lat.; ascis clavatis, 8-sporis; sporidiis longe cylindraceis 24-30 × 1-2, uno apice sæpe incrassatis, altero longe tenuatis, 4-8-septatis, hyalinis; paraphysibus manifestis.

Hab. in thallo Körberiellæ Wimmerianæ, Hirschberg Silesiæ (Stein).

49. **Metasphæria Steinii** (Körb.) Schröt. Pilzfl. Schles. II, pag. 355, 2423
Leptorrhaphis Steinii Körb. in Bericht. bot. Sect. d. Schles. Ges. 1869, p. 67, *Leptosphæria Steinii* (Körb.) Wint. Pilzfl. II, p. 443. — Peritheciis sparsis, immersis, globosis, ostiolo applanato emergente, 0,4 mm. lat., contextu molli, atro-brunneo; ascis breve clavatis, sessilibus, 57-61 ≈ 9-10, octosporis; sporidiis oblongo-fusoideis 22-40 ≈ 2-3, curvulis, 2-8-septatis, hyalinis; paraphysibus filiformibus tenuissimis.

Hab. in thallo, qui albidus et verrucosus fit, Lecanoræ frustulosæ Hirschberg Silesiæ (Körber).

50. **Metasphæria corniculata** (Wallr.) Sacc. et D. Sacc. *Obryzum cor-* 2424
niculatum Wallr. Fl. crypt. II, p. 296, Nyl. Syn. p. 136. — Peritheciis minutissimis, immersis, tuberculatis, sparsis; ascis octosporis, aparaphysatis; sporidiis breve fusoideis, utrinque acutulis subcorniculatis, indistincte 8-cellularibus, hyalinis, 16 21 ≈ 5-6.

Hab. in thallo Leptogii corniculati et L. microscopici in Germania et Britannia.

51. **Metasphæria ? superveniens** (Nyl.) Sacc. et D. Sacc. *Melanotheca* 2425
superveniens Nyl. Flora, 1864, p. 358. — Peritheciis nigris, planis, subrotundatis, 1 mm. v. minoribus, nonnullis in quaque excrescentia matricis tuberculiformi innatis; sporidiis quaternis vel octonis, fusoideis, 3-septatis, hyalinis, deorsum subapiculatis 32--36 ≈ 6–7; paraphysibus gracilibus, anastomosantibus.

Hab. in thallo Parmeliæ sulcatæ et saxatilis prope Brest Galliæ (Crouan).

52. **Metasphæria Croceæ** (Bagl. et Car.) Sacc. et D. Sacc. *Xenosphæ-* 2426
ria Croceæ Bagl. et Car. Anacr. lich. p. 352, t. V, f. 79 (1879). — Peritheciis exiguis, semiemersis, cupuliformibus, atris, nigro-fuscis; ascis elongato-fusoideis, 8-sporis, capillaceo-paraphysatis; sporidiis late fusoideis utrinque acutiusculis, plerumque oblique 3-7-septatis, 28-36 ≈ 8-10, hyalinis, loculis sat inæqualibus.

Hab. in thallo Solorinæ croceæ, Valdobbia in Ital. super.

53. **Metasphæria dolichotera** (Nyl.) Sacc. et D. Sacc. *Leptosphæria* 2427
dolichotera (Nyl.) Zopf, Hedw. 1896, p. 324, *Obryzum dolichoterum* Nyl. Flora 1872, pag. 353. — Peritheciis immersis, nigris; ascis aparaphysatis, octosporis; sporidiis cylindraceo-oblongis, hyalinis, 4–6-cellularibus, 23-27 ≈ 4,5-5.

Hab. in thallo Collematis auriculati in Scotia (Crombie).

54. **Metasphæria pluriseptata** (Nyl.) Sacc. et D. Sacc. *Verrucaria pluriseptata* Nyl. Flora, 1873, p. 74. — Peritheciis nigris, exiguis; ascis octosporis, paraphysatis; sporidiis 6-cellularibus, 18-30 × 5-6. 2428

Hab. in thallo et apotheciis Placodii saxicoli prope Valbonne Pyrenæorum orientalium. — Peraffinis dicitur *Didymellæ epicarphineæ* sed sporidia pluriseptata.

MELOMASTIA Nits. et Fuck. — Syll. II p. 213.

1. **Melomastia corylina** Feltg. Vorstud. Pilz. Luxemb., 1901, Nachtr. II, p. 191. — Peritheciis gregariis, fere confluentibus, hemisphæricis, basi fere deficientibus, epidermide tumidula tectis, vertice tamen denudatis, membranaceo-coriaceis 500-800 μ. diam., atro-brunneis, ostiolo depresso-papillato; ascis clavatis, longiuscule stipitatis, apice rotundatis, filiformi-paraphysatis, 120 × 13-15; sporidiis cylindraceo-oblongis, utrinque conoideo-rotundatis, subdistichis 4-cellularibus, crasse 4-guttatis, rectiusculis 21-26 × 6-8, cellulis mediis paullo crassioribus. 2429

Hab. in ramis corticatis Coryli, Luxemburg. — *Melomastiæ corticolæ* affinis.

2. **Melomastia Morthieri** (Fuck.) Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 191: cfr. Syll. II, p. 222, sub *Zignoella* — **var. Thujæ** Feltg. l. c. — A typo differt ascis longioribus et angustioribus 60-104 × 8-10; sporidiis quoque angustioribus 24-26 × 4-5, pariter 4-cellularibus et 4-guttatis. 2430

Hab. in ramis decorticatis Thujæ orientalis, Luxemburg.

CERIOSPORELLA Berl. Icon. fung. I pag. 121 tab. CXXVII. — Syll. XIV p. 19. — Perithecia epidermide tecta, papillata. Asci clavati, octospori. Sporidia fusoidea, subcymbiformia, utrinque setigera, hyalina, diu 1-septata, tandem 3-pluri-septata. — Huc referendæ *C. Patouillardi* (Let.) Berl. l. c. (= *C. Ulicis* Pat. — Syll. IX, p. 845 —), *C. bicalcarata* (Ces). Berl. l. c. *C. fuscescens* (Niessl.) Berl. l. c., ubi de generis autonomia dubitatur.

1 **Ceriosporella acuta** (Annie L. Smith), Sacc. et D. Sacc. *Ceriospora acuta* A. L. Smith Journ. Linn. Soc. XXXV, p. 17, t. II, f. 19-21. (extr.) — Syll. XVI, p. 1137 (nomen). — Peritheciis carbonaceis, atris, sparsis vel confertis et fere confluentibus, superficialibus, exiguis, inferne circa 500 μ. latis, in apicem lineis brunneis, longitudinaliter ornatum attenuatis, 200 μ. longis; sporidiis primum cylin- 2431

draceis, utrinque appendiculatis dein sursum dilatatis, grosse guttulatis, 2-pluriseptatis, circa 45 × 8, hyalinis.

Hab. ad ligna, in ins. Dominica Indiæ occid.

BERTIELLA Sacc. — Syll. I p. 584 (1882) XIV p. 19. — Ab affini genere *Bertia* dignoscitur sporidiis 2-pluri-septatis, hyalinis.

1. **Bertiella botryosa** Morgan Journ. Mycol. 1904, p. 161. — Peritheciis 200 μ. diam. in tubercula minuta, depressa, orbicularia vel irregularia cæspitoso-connatis, minutis, subglobosis, rugulosis, nigris, ostiolis simplicibus; ascis tereti-clavatis, breve stipitatis, paraphysatis octosporis, 100-110 × 11-14; sporidiis fusiformibus hyalinis 1-3-septatis, 20-30 × 5-6. 2432

Hab. in ligno indurato Ulmi, Preston, Ohio Amer. bor.

BAUMIELLA P. Henn. in Ergebn. der Kunene Sambesi Exped. p. 165 (1902) (Etym. a collectore Baum). — Perithecia cæspitose erumpentia dein superficialia, membranacea, sublevia v. rugulosa, minute ostiolata dein collabentia. Asci clavati octospori. Sporidia oblonga, hyalina, subflavidula, dein 3-septata. — Ob perithecia membranacea et habitationem a *Trematostomate* Sacc., *Winterina* Sacc. et *Bertia* De Not. differt.

1. **Baumiella cæspitosa** P. Henn. l. c. — Peritheciis cæspitosis vel botryose erumpentibus, epiphyllis gregariis in maculis rotundatis fuscis, primo epidermide rupta cinctis, membranaceis, atro-castaneis, subglobosis v. ovoideis, minute ostiolatis dein collabentibus, 150-180 μ. diam.; ascis clavatis, apice rotundatis tunicatis, octosporis; sporidiis subdistichis v. conglobatis, oblonge ellipsoideis vel clavatis, dein 3-septatis, paullo constrictis, utrinque obtusis, 26-33 × 9-13 hyalino-subflavidulis, loculis guttulatis. 2433

Hab. ad folia graminea supra folia Monotis dasyacanthi, Quiriri pr. Sobi Africæ austr.

WINTERINA Sacc. — Syll. XIV p. 589, XVI p. 538 et cfr. quoque II p. 222, IX p. 870.

1. **Winterina gallica** Sacc. et Flag. in Atti Congr. bot. Palermo 1902, p. 53. — Peritheciis laxe gregariis, basi adnata superficialibus, globoso-depressis, 250 μ. d., ostiolo rotundo impresso 60-70 μ. d., pertusis, glabris, nigricantibus; perithecii contextu irregulariter pareuchymatico, molliusculo, olivaceo-fuligineo; ostioli periphysibus copiosis, angustis, hyalinis; ascis cylindraceis, apice rotunda- 2434

tis, basi tenuatis, 140 × 8-9; paraphysibus copiosissimis, crassiusculis (an ascis sterilibus?) hyalinis; sporidiis oblique monostichis, fusoideis, sæpe inæquilateris, utrinque obtusulis v. subacutis 22-26 × 4-4,5, initio 6-guttatis, tandem spurie 5-septatis, non constrictis, cuboideo-nucleatis, hyalinis.

Hab. in ligno putrescente Castaneæ, Issy-l'Eveque Galliæ.

ZIGNOËLLA Sacc. — Syll. II p. 214, IX p. 860, XI p. 339, XIV p. 587, XVI p. 536, 1137.

1. **Zignoëlla Cæsalpiniæ** A. Zimm. in Centr. f. Bakter. 1902, VIII, pag. 181. — Peritheciis superficialibus, late gregariis, globoso-depressis, vertice poro rotundo amplo apertis, levibus, pachydermaticis, 370-450 μ. diam.; ascis cylindraceis, octosporis; sporidiis oblongis, utrinque obtusis, 3-septatis, non constrictis, grosse 4-guttatis, hyalinis, 22 × 5-6; paraphysibus filiformibus. 2435

Hab. in ramis Cæsalpiniæ coriariæ cultæ pr. Buitenzorg Javæ.

2. **Zignoëlla Garciniæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 51. — Peritheciis superficialibus subgregariis, minutis, hemisphæricis, subcarbonaceis, atris, papillatis 100-150 μ. diam.; ascis oblonge clavatis, apice tunicatis, 8-sporis, 40-50 × 8-10; paraphysibus copiosis, filiformibus, flexuosis, hyalinis, ca. 0.5 μ. cr.; sporidiis subdistichis, oblonge fusoideis, utrinque obtusiusculis, 5-septatis, hyalinis, 12-15 × 3-4. 2436

Hab. in ramis Garciniæ spec., Ost-Usambara Africæ orient. (Engler).

3. **Zignoëlla Cascarillæ** Rehm, Hedw. 1903, p. (292). — Peritheciis sparsis, in cortice late dealbato sessilibus, globulosis, poro minutissimo pertusis, glabris, membranaceis, parenchymatice contextis, 120-200 μ. diam.; ascis clavatis, apice rotundatis 40-50 × 10-12 octosporis; paraphysibus mucedinosis, jodi ope cæruleo tinctis; sporidiis subclavatis, utrinque obtusis 1-dein 3-septatis, ad septa vix constrictis, hyalinis, 12-14 × 4-5, distichis. 2437

Hab. ad corticem Crotonis Cascarillæ venalem, ex Amer. meridioncli. — Ad *Stigmateam* nutat.

4. **Zignoëlla Potentillæ** Tracy et Earle, Plantæ Bakerianæ fasc. I, Fungi p. 28. — Peritheciis sparsis, erumpentibus, subsuperficialibus, nigris, depresso-globosis, rugulosis, 0,5 mm. diam.; ostiolo conico; ascis cylindraceo-fusiformibus, breve stipitatis, octosporis 45-50 × 2438

10-12; paraphysibus filiformibus asco subæquilongis; sporidiis hyalinis ovoideis vel ellipticis, 3-4-septatis, 11-12 × 4-5.

Hab. in caulibus decorticatis Potentillæ fruticosæ, Bob Creek, Colorado Amer. bor.

5. **Zignoëlla sardoa** Sacc. et Trav. in Annal. Mycol. 1903, p. 431, f. I. 2439
— Peritheciis sparsis vel gregariis, cortice basi leviter immersis, subglobosis demum umbilicato-depressis, vix papillatis, latiuscule pertusis, nigris, glabris, $^1/_4$ mm. diam; ascis cylindraceo-clavatis, superne vix attenuatis, deorsum sensim pedicellatis, 60-70 × 5-6; paraphysibus ascos aliquantulo superantibus, guttulatis, continuis; sporidiis distichis, e cylindraceo fusoideis, utrinque acutulis, rectis vel curvulis, continuis, hyalinis, 14-18 × 3, obsolete guttulatis.

Hab. in ramis corticatis, emortuis, Thymi, prope Sassari Sardiniæ (A. N. Berlese). — Ad subg. *Zignoinam* spectat.

6. **Zignoëlla Piceæ** P. Henn. in Hedw. 1904, p. 70. — Peritheciis 2440
corticolis superficialibus, gregariis vel sparsis, ovoideis, atris, opacis, papillatis, ca. 300-350 μ.; ascis cylindraceis, subfusoideis, apice attenuato-obtusiusculis, 8-sporis, 100-120 × 10-13, paraphysibus copiosis, filiformibus, hyalinis, ca. 2 μ. crassis; sporidiis obliquo monostichis v. subdistichis, oblonge fusoideis, utrinque attenuatis, obtuse rotundatis v. subacutis, 4-guttulatis, dein 3-septatis, haud constrictis, hyalinis, 18-22 × 4-5.

Hab. in corticibus Piceæ vulgaris, Michailowskoje, in ditione Mosquensi Rossiæ.

7. **Zignoëlla faginea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2441
1903, p. 292. — Peritheciis gregariis vel sparsis, subgloboso-depressis, basi insculptis, coriaceo-carbonaceis, nigris 200-250 μ. diam. papilla minutissima; ascis clavatis, apice subrotundatis, breve stipitatis, crasse tunicatis, aparaphysibus filiformibus superatis, octosporis 48-60 × 9-10; sporidiis distichis, oblongo-ellipsoideis v. subfusoideis vel cylindraceis, utrinque obtusis, rectis curvulisve 2-4-guttatis, an demum septatis?, hyalinis 10-14 × 3-4.

Hab. in ramis decorticatis Fagi, Luxemburg.

8. **Zignoëlla prorumpens** (Rehm) Sacc. — Syll. II, pag. 223. — var. 2442
oxystoma Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 292. — A typo differt, præter matricem, ostiolis valde acutis vix perforatis; ascis crassioribus 130-150 × 10-13; sporidiis indistincte septatis, non nucleatis, 20-22 × 7-10.

Hab. in ramis decorticatis putridis Quercus, Luxemburg.

9. **Zignoëlla salicicola** H. Fabre — Syll. IX, p. 862. — var. **nigri-** 2443

ficans Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 272, sub *Melomastia.* — Peritheciis gregariis v. basi pluribus confluentibus, ligno denigrato subimmersis, globoso-ellipsoideis, 500 μ. diam., ostiolo breve cylindraceo perforato emergentibus, carbonaceis, nigris, nucleo albo; ascis clavatis, breve stipitatis, paraphysatis, octosporis, 80-95 × 16-20; sporidiis distichis, elliptico-fusoideis, utrinque obtusis, 3-septatis, ad septa, præcipue medium, constrictis 33-42 × 8-10, subinde muco obductis, cellula secunda paullo crassiore, cellulis mediis binis crasse 1-guttatis, extimis minute guttulatis.

Hab. in ramis decorticatis putrescentibus Salicis, Luxemburg.

10. **Zignoëlla sphæroides** (Schär.) Rehm, Hedw. 1903, p. (175) *Pyrenula sphæroides* Schär. Enumeratio Lichenum. p. 30, non *Verrucaria sphæroides* Wallr. (= *Acrocordia tersa* Körb.). — Peritheciis sparsis, in cortice dealbata sessilibus, globosis, apice demum truncatis, poro minutissimo pertusis, glabris, atris, parenchymatice fusce contextis 400 μ. diam.; ascis clavatis, crasse tunicatis, apice rotundatis, vix stipitatis, 80-100 × 12-14, octosporis; sporidiis aciculariboss, apice superiore sæpe crassiore, inferne acutatis, rectis v. subcurvatis, 7-septatis, hyalinis 30-40 × 3-3,5, 2-3-stichis,; paraphysibus filiformibus, septatis, 3 μ. diam.; hymenio jodi ope leviter tincto. 2444

Hab. ad infimos truncos Alnorum, prope Zürich Helvetiæ (Hepp.) et in horto Castri Heidelbergensis Germaniæ (Zwackh) et in cortice Rhamni Frangulæ, Riffersweil Hungariæ (Hegetschweiler).

11. **Zignoëlla sabalina** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — Peritheciis superficialibus gregariis vel subcongestis, ovatis, rugosulis, collapsis, 300-350 μ. diam., ostiolo papillato donatis; ascis clavato-cylindraceis 45-60 × 10-12, subsessilibus, aparaphysatis; sporidiis fusoideis, subinæquilateralibus vel curvulis, hyalinis, 3-septatis, parce constrictis, 15-20 × 4,5-5. 2445

Hab. in petiolis Sabalis Adansonii, Alabama Americæ.

12. **Zignoëlla enormis** Pat. et Har. Journ. de Bot. 1903, p. 228. — Peritheciis solitariis, sparsis, superficialibus, vix insculptis, facillime dilabentibus, atris, ovoideis, apice poro pertusis, glabris, majusculis, 700-800 × 400, contextu coriaceo (nec carbonaceo), parenchymatico, brunneo; ascis diffluentibus longe clavatis, sursum obtuse rotundatis, deorsum attenuatis, 8-sporis, indistincte paraphysatis; sporidiis cylindraceis, plus minus flexuosis, utrinque basim obtuse 2446

attenuatis, transverse 4-5 septatis, non constrictis, hyalinis, protoplasmate nitenti repletis, 280-350 × 12-14.

Hab. in thallo algæ Stypocauli scoparii pr. Cadiz Hispaniæ (Sauvageau). — Sporidiis vere enormibus distincta.

13. **Zignoëlla cubensis** Har. et Pat. Bull. Soc. Myc. 1904, p. 65. — 2447
Peritheciis solitariis, sparsis, superficialibus, vix insculptis, facillime dilabentibus, atris, ovoideis, coriaceis, non carbonaceis, glabris, majusculis 800 × 500, apice poro 100 μ. lato pertusis; ascis diffluentibus; sporidiis valde elongatis 12-septatis, utrinque obtuse attenuatis. 240-250 × 10-16.

Hab. in thallo algæ Stypocauli scoparii, prope Habana Cubæ (Lenormand). — *Zign. enormi* valde affinis.

ACANTHOSTIGMA De Not. — Syll. II p. 207, IX p. 854, XI p. 337, XIV p. 590, XVI p. 539.

1. **Acanthostigma Heraclei** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2448
1903, p. 299. — Peritheciis gregariis confertis, coriaceo membranaceis, innato-erumpentibus, demum subliberis, globoso-depressis, minute papillatis, siccis collabentibus, 200-300 μ. diam., nigricantibus, setulis septatis, rigidulis 75-100 × 5-8, brunneis vestitis basique hyphis brunneis, repentibus cinctis; ascis tereti-clavatis, stipitatis, 75-95 × 9-10, paraphysibus septatis, filiformibus obvallatis, octosporis; sporidiis monostichis, oblongis vel subfusoideis, obtusis, rectis curvulisve constricto-1-septatis, hyalinis, demum flavido-melleis, 16-31 × 5-8.

Hab. in caulibus siccis Heraclei Sphondylii, Luxemburg.

2. **Acanthostigma curvisetum** Mc. Alp. Fungus diseases Stone-fr. 2449
trees, Melbourne 1902, p. 123, fig. 251-254. — Peritheciis sparsis, superficialibus, nigris, globosis, membranaceis, firmis, poro pertusis, setulis curvulis nigro-brunneis vestitis, 180-200 μ. diam.; setulis 38 μ. long., apice conicis; ascis clavatis vel oblongo-clavatis, breve stipitatis, octosporis, 65-85 × 11-19; paraphysibus tenuibus, filiformibus subæquilongis; sporidiis conglobatis, hyalinis, cylindraceo-fusoideis, paullum curvulis, utrinque acutis, multiseptatis, usque 14-septatis, guttulatis, 50-60 × 5-5,5.

Hab. in ligno emortuo Pruni Armeniacæ, Armadale Australiæ.

3. **Acanthostigma Conocarpi** Tracy et Earle in Bull. of the Torr. bot. 2450
Club. 1901, p. 186. — Maculis nullis; peritheciis hypophyllis, raro amphigenis, sparsis, minutis, subconicis, brunneis 75-90 μ. d.;

contextu parenchymatico; setulis sparsis, erectis, rigidis, intense fuligineis, opacis 40-50 μ. long. 4 μ. ad basim crassis, acuminatis; ascis oblongis vel subobovatis, breve pedicellatis 40 × 10; paraphysibus filiformibus asco sublongioribus; sporidiis distichis, cylindraceo-clavatis, basi obtusis, apice subacutis, 2-septatis, ad septa non constrictis, hyalinis, 12 × 3.

Hab. in foliis Conocarpi sericeæ, Longboat Key, Fla. Amer. bor.

4. **Acanthostigma dispar** Morgan Journ. of Mycol. 1904, p. 162. — 2451
Peritheciis superficialibus subgregariis, 300-400 μ. diam. ovoideis, nigris, papillatis, setulis minutis, sparsis, vestitis vel subglabris, contextu e cellulis globosis, membranaceis, amplis 20-25 μ. diam. formato; ascis lanceolatis curvatis, octosporis, parce paraphysatis, brevissime stipitatis 160-180 × 9-12; sporidiis 2-3-stichis, linearifusiformibus curvis, hyalinis, 7-11-septatis, 45-60 × 4.

Hab. in ligno putri, Preston, Ohio Amer. bor. — *Acanthostigmati scopulæ* et *A. minuto* proxime affine.

ENCHNOSPHÆRIA Fuck. — Syll. II p. 205, IX p. 883, XVI p. 541.

1. **Enchnosphæria hispida** Morgan, Journ. of Mycol. 1904, p. 162. — 2452
Peritheciis superficialibus, gregariis, ovoideis, pachydermicis, carbonaceis, setulis 100-200 μ. longis, nigris, rigidis vestitis, 300-400 μ. diam.; ascis tereti-clavatis paraphysatis, octosporis, 110-120 × 10-12; sporidiis clavato-oblongis, utrinque obtusis, hyalinis continuis, dein 3-septatis, 15-20 × 5-8.

Hab. in cortice interiore Aceris, Preston, Ohio Amer. bor.

LASIOSPHÆRIA Ces. et De Not. — Syll. II p. 191, IX p. 849, XI p. 336, XIV p. 592, XVI p. 540.

1. **Lasiosphæria conica** v. Höhn Ann. Mycol. 1904, p. 43. — Peri- 2453
theciis superficialibus, dense gregariis, ex ovoideo conicis, 600-800 μ. altis, ca. 500 μ. latis, carbonaceis, nigris, supra nudis et longitudinaliter sulcato-striatis, in basi strigoso-villosis; ascis fusoideo-clavatis, supra sensim attenuatis, truncatis, longe pedicellatis, 120-180 × 12-18; paraphysibus numerosissimis, coalescentibus, ascos superantibus, 3-4 μ. latis, septatis, guttulis oleosis præditis obvallatis; sporidiis octonis pluriseriatis, cylindraceis, in parte inf. obtuse et angulatim curvatis, antice rotundatis, basi caudicula subtili 3-4 × 1-1,5 auctis, continuis, multiguttulatis, 50-52 × 4-5.

Hab. in ligno carioso Aceris (?) in silvis vallis Schedinaz pr.

Jaize Bosniæ, Sept. 1903. — *L. setosæ* affinis sed appendicula sporidiorum diversa.

2. **Lasiosphæria ovina** (Pers.) Ces. et De Not. — Syll. II, p. 199. — 2454
var. **aureliana** Fairm. Journ. of Mycol. 1904, p. 229. — Perithecis sparsis vel gregariis majusculis, ovato-globosis, basi hyphis longis, septatis, brunneis 6 μ. cr., simplicibus vel ramosis, subflexuosis cinctis, tomento griseo-albido persistenti tectis, excepto ostiolo papilliformi denudato; perithecii substantia flavo-virenti; ascis oblongo-fusoideis, rectis vel curvis 100 × 12, vulgo guttula oleosa apice rotundato præditis; sporidiis imperfecte biseriatis v. fasciculatis, cylindraceis, partim flexuosis, deorsum abrupte curvatis, continuis, hyalinis, 40 × 5, subinde appendicula 6 μ. longa, acuta, hyalina, hinc vel utrinque auctis; paraphysibus obsoletis.

Hab. in ligno putrescenti Tiliæ americanæ, Lyndonville N. Y. Amer. bor. — A typo forte specifice distinguenda species.

3. **Lasiosphæria luticola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2455
1903, p. 297. — Perithecis subcæspitosis, rarius solitariis, sessilibus, subiculo nullo insitis, subglobosis vel globoso-ovoideis, rugulosis et, excepto vertice, setulis copiosis, obtusis, brunneo-atris, rectis, 80-140 × 5-8 vestitis et basi hyphis repentibus, septatis ramosis, atris, cinctis, 500-600 μ. diam., ostiolo minuto, subgloboso, nitide nigro; ascis cylindraceis vel subellipticis, stipitatis 270 × 19-23, octosporis, paraphysibus filiformibus evanidis; sporidiis distichis, cylindraceis, deorsum geniculato-curvatis, sursum ellipticoinflatis, 16-20 × 10 (parte incrassata), primo appendicibus acutis hyalinis 20-30 μ. longis, utrinque auctis, continuis, minute pluriguttulatis, dein pluriseptatis ex hyalino brunneolis 55-63 × 5-6.

Hab. in lutosis silvaticis, Luxemburg. — *Las. acinosæ* et *L. palustri* subaffinis.

HERPOTRICHIA Fuck — Syll. II p. 211, IX p. 856, XI p. 338, XIV p. 592, XVI p. 541, 1137.

1. **Herpotrichia ochrostoma** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2456
III, 1903, p. 296. — Perithecis gregariis, subinde pluribus confertis, subglobosis, basi leviter insculptis 500-800 μ. diam., papilla obtuse conoidea erumpentibus, hyphis septatis, ramosis, repentibus brunneis 5-7 μ. cr. vestitis, atro-brunneis, rugosis; ascis tereti-clavatis, breve stipitatis, aparaphysibus filiformibus, septatis superatis, 140-195 × 13-14, octosporis; sporidiis 1-2-stichis, fusi-

formibus, utrinque obtusulis, rectis curvulisve, 5-septatis, constrictis, pluriguttulatis, 40-49 ≈ 6,5-8.

Hab. in ramis putridis, decorticatis Fraxini excelsioris, Luxemburg. — *Enchnosphæriæ Cap. Medusæ* subaffinis.

2. **Herpotrichia laricina** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 215. — Peritheciis gregariis, globosis, subdepressis, papillatis, basi leviter insculptis ibique hyphis brunneis vestitis, sursum setis nigro-brunneis septatis, rigidis, apice subacutis 40-52 ≈ 2,5-3,5 hirtis, 400 μ. diam.; ascis breve clavatis, 44-65 ≈ 10,5, octosporis; sporidiis distichis, obtuse fusoideis, rectis curvulisve, 4-cellularibus, leviter constrictis, dilute flavidis v. brunneolis, 15-18 ≈ 5-6. 2457

Hab. in ramis corticatis Laricis deciduæ, Luxemburg. — Indumento peculiari, sporidiis ascisque minutis dignoscenda species.

3. **Herpotrichia caulogena** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 296. — Peritheciis sparsis, sessilibus vel basi insculptis, hemisphæricis 500 μ. diam., atro-brunneis, papillatis, basi hyphis sursum setulis 40-45 ≈ 5, atro-brunneis vestitis; ascis clavatis, 91-130 ≈ 8-9, paraphysibus filiformi-clavatis, hyalinis, superantibus obvallatis; sporidiis distichis, ellipsoideo-clavatis, apice crassioribus et apiculo præditis, rectis curvulisve bicellularibus, pluriguttulatis hyalinis, ad septum leviter constrictis, 18-21 ≈ 3-4. 2458

Hab. in caulibus pütridis Silenes nutantis, Luxemburg. — *Herp. chæthomioidi* affinis.

4. **Herpotrichia collapsa** (Romell) Rehm, Hedw. 1903, pag. (176). — Ita vocanda *Bertia collapsa* Romell Bot. Not. 1889, pag. 24 — Syll. IX, p. 687; nam ob subiculum proprium manifestum non est *Bertiæ* species, sed *Herpotrichiæ*.

CERATOSPHÆRIA Niessl — Syll. II p. 227, XI p. 340, XVI p. 1137.

1. **Ceratosphæria aparaphysata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 280. — Peritheciis solitariis vel 2-4 approximatis ligno immersis et tantum ostiolo conico obtuso vel cylindraceo, crassiusculo, atro-nitido, perithecium dimidium æquante emergentibus, globosis, asperulis, firmis, nigris, 300-400 μ. diam.; ascis tereti-clavatis, apice obtusulis incrassatis, tenuato-stipitatis, aparaphysatis 87-138 ≈ 8-9, octosporis; sporidiis 1-2-stichis, anguste fusiformibus, obtusulis, rectis curvulisve 5-septatis, non constrictis hyalinis, pluriguttulatis, 40-50 ≈ 2,5-3. 2459

Hab. in ramis siccis decorticatis Fagi, Luxemburg.

2. **Ceratosphæria occultata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 2460

III, 1903, p. 280. — Peritheciis gregariis innatis, globosis, nigris, 150-200 μ. diam., ostiolo emergente, cylindraceo-nodoso recto vel curvato, perithecium semel v. bis superante; ascis cylindraceis, apice rotundatis, longissime stipitatis, filiformi-paraphysatis, octosporis 190-210 × 10, p. sporif. 130-140 μ. long.; sporidiis oblique monostichis, late ellipsoideis vel obovatis, 3-5-septatis, non constrictis, hyalinis, minute pluriguttatis, 19-23 × 8.

Hab. in ramis putridis, decorticatis Fagi, Luxemburg. — Sporidiorum forma in genere peculiaris.

3. **Ceratosphæria obliquata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 203. — Peritheciis sparsis vel hinc inde approximatis, basi insculptis sed superficialibus, ovato-conicis, 300 μ. diam., nigris in ostiolum subæquans, conico-cylindraceum, atro-nitidulum acutum tenuatis; ascis cylindrico-clavatis, breve stipitatis, apice obtuse tenuatis, plerumque 120-150 × 13-18, subinde longioribus; sporidiis distichis, fusoideo-clavatis, 5-7-septatis, leviter constrictis, rectis curvulisque, hyalinis, granulosis, 20-26 × 5-8, raro longioribus; paraphysibus filiformibus, 2-3 μ. cr., guttulatis, ascos superantibus. 2461

Hab. in ramis decorticatis Pini, Luxemburg. — Ad *Zignoëllæ* species breve rostellatas nutat.

4. **Ceratosphæria grandis** Boud. in Bull. Soc. Myc. de France 1902, n. 2, tab. VII, fig. 2. — Peritheciis 1-1,5 mm. diam., atro-virentibus, rotundato-applanatis, longe ostiolatis, primo e ligno erumpentibus dein subliberis sed ligno ad basim semper subimmersis sparsis v. gregariis, ostiolo sat crasso, recto aut sæpius undulato, concolori; contextu brunneo; ascis cylindraceis, octosporis, ad basim paullo attenuatis, 220 × 10-12; paraphysibus tenuibus, hyalinis, intus vix granulosis, septatis; sporidiis cylindraceis, rectis aut curvatis, utrinque subattenuatis, 5-7-septatis, pluriguttulatis, hyalinis, intra ascos pallidissime fuscis, 70-100 × 5-6. 2462

Hab. ad ligna putrida prope Bourg, Ain Galliæ (D. Clerc). — Ab affini *Cer. æruginosa* Rehm peritheciis sporidiisque duplo majoribus differt.

GNOMONIOPSIS Berl. Ic. fung. I, p. 93 (1892) (Etym. *Gnomonia* et *opsis* aspectus). — Perithecia innata, rostro longiusculo prædita membranacea. Asci octospori. Sporidia fusoideo-elongata, pluriseptata, articulis non secedentibus. — Articulis sporidiorum non sece-

dentibus a gen. *Cryptoderi* differt et *Ceratosphæriæ* accedit, quæ contra recedit peritheciis lignicolis durioribus.

1. **Gnomoniopsis Chamæmori** (Fr.) Berl. l. c. t. 85, f. 1, *Cryptoderis Chamæmori* (Fr.) Sacc. — Syll. II, p. 230.

CALOSPORA Sacc. — Syll. II p. 231, IX p. 871, XI p. 341, XIV p. 593.

1. **Calospora austriaca** v. Höhn. Ann. Mycol. II, 1904, pag. 44. — 2463
Stromate e basi ovali conico-attenuato, depresso, 1-1,5 mm. lato in pustulas parum elevatas protuberante, peridermio adhærente tecto: peridermio solum disculo transverso elliptico v. lanceolato pertuso; peritheciis in quoque stromate 10-25, in corticis contextu parenchymatico immutato insculptis, plerumque 2-3-stichis, globosis v. mutua pressione irregulariter ordinatis, 150-300 μ. latis, nigris, hinc inde confluentibus, collis brevibus crassis, usque 90 μ. long., 80 μ. lat. instructis; ostiolorum disculo atro-fusco, elliptico vel transverse lanceolato, ca. 1 mm. long., ruguloso; ostiolis parum incrassatis, poro pertusis, disculos parum superantibus; ascis clavatis, membrana apicem versus parum incrassata tectis, deorsum breve stipitatis, octosporis, 80-90 × 10-14, paraphysibus numerosis, subtilibus, hinc inde ramosis stipatis; sporidiis di-tristichis, hyalinis, subfusiformibus vel biconicis, quadricellularibus, ad septa, præcipue medium, constrictis, rectis vel sæpius parum curvatis, utrinque obtusiusculis, guttulis oleosis 4 farctis, strato mucoso destitutis, 18-25 × 3-5.

Hab. in ramulis emortuis Alni viridis in valle Gross Pischingthal prope Aspang ad pedem montis Wechsel Austriæ inferioris. — Exsicc.: Rehm, Ascomyceten n. 1477.

2. **Calospora allantospora** Ell. et Ev. in Journ. of Myc. 1903, p. 223. 2464
— Peritheciis sparsis, in cortice et in ligno immersis, depresso-globosis 0,5 mm. diam., brunneis, contextu carbonaceo-coriaceo; ostiolo conico vel breve cylindrico, erumpenti donatis; ascis clavatis, p. spor. 45-55 × 7-9; paraphysibus 50-90 μ. longis; sporidiis distichis, cylindraceis, curvulis, hyalinis, obtusis sub-3-septatis, 15-20 × 2,5-3, ad septa non constrictis.

Hab. in ramis corticatis Corni alternifoliæ et Aceris saccharini, London, Canada, Amer. bor.

3. **Calospora Pickeli** Oud. et Rich. Beih. Bot. Contr. 1902, p. 5. — 2465
Stromatibus regulariter distributis, valsoideis, cortici immersis, e basi orbiculari vel elliptica, nigro-cincta late conoideo-truncatis,

primo peridermate tectis, dein protuberantibus, pustuliformibus, salvo disco, peridermate adhærente integro v. denique lacerato tectis; peritheciis basi corpori lignoso superficialiter impressis, in singulo stromate usque ad 20, circinantibus v. sibi invicem arcte appressis, subsphæroideis v. angulosis 0,3-1 mm. diam., collis brevibus, fasciculatis, vix conniventibus, ostiolis nigerrimis, micantibus, obtusis, perforatis; ascis fusiformibus 50-60 × 7 octosporis; sporidiis distichis, cylindraceis, strictis, hyalinis, quadriguttulatis quasi 1-septatis medioque constrictis, revera autem, jodo addito, 3-septatis 14-16 × 3,5; paraphysibus tenerrimis, guttulatis, diffluentibus.

Hab. in ramis Carpini Betuli, Valkenberg Hollandiæ.

Sect. 7 **Phæophragmiæ.**

PHÆOSPORA Hepp — Syll. XVI p. 519.

1. **Phæospora triphracta** (Nyl.) Zopf, Hedw. 1896, p. 339, *Endococcus triphractus* Nyl. Fl. 1872, p. 364. — Peritheciis globosis, nigris; ascis 8-sporis, fusoideo-oblongis 11-16 × 4-6, 3-septatis fuscis. 2466

Hab. in thallo Lecideæ umbonatulæ in Hogland (Brenner).

2. **Phæospora triphractoides** (Nyl.) Zopf, Hedw. 1896, p. 338, *Endococcus triphractoides* Nyl. Grevillea III, pag. 24. — Peritheciis nigris hemisphæricis; ascis octosporis; sporidiis oblongo-fusoideis, 4-cellularibus brunneolis, 14–18 × 6-7. 2467

Hab. in thallo, quem dealbat, Lecideæ scotinodis in Britannia.

3. **Phæospora Triplicantis** (Wainio) Zopf, Hedw. 1896, p. 320, *Tichothecium Triplicantis* Wain. Adj. II, p. 263. — Peritheciis nigris; ascis aparaphysatis octosporis; sporidiis oblongis, 4–6–cellularibus, 14-20 × 6–7, brunneis. 2468

Hab. in thallo Bilimbiæ microcarpæ in Fennia.

4. **Phæospora Granulosæ** Arn. Lich. fragm. n. 34, p. 5, t. 8, fig. 6, Œst. bot. Zeitschr. 1895. — Peritheciis atris, punctiformibus, verrucarioideis; ascis aparaphysatis jodo non coloratis; sporidiis oblongis utrinque obtusulis, rectis curvulisve, 3-septatis, leviter constrictis, fuscis, 18-21 × 5-6. 2469

Hab. in thallo Biatoræ granulosæ in Bavaria.

5. **Phæospora hetærizans** (Leight.) Zopf, Hedw. 1896, p. 366, *Verrucaria hetærizans* Leight. Brit. Lich. p. 493. — Peritheciis im- 2470

mersis nigris; ascis aparaphysatis, octosporis; sporidiis 4-cellularibus, ad septa constrictis, brunneis.

Hab. in thallo Verrucariæ submersæ in Britannia.

6. **Phæospora supersparsa** Arn. ap. Zopf in Act. Leop. Carol. t. LXX, 1897, p. 137, cum ic. — Peritheciis gregariis punctiformibus, innatis, 160-200 μ. diam., vertice obtusulo obsolete pertuso, vix emergente; ascis cylindraceis, apice rotundatis, deorsum breviter tenuato-stipitatis, aparaphysatis, plerumque 4-6-sporis, 84-89 × 10-14,5; sporidiis monostichis, ellipsoideo-oblongis, utrinque rotundatis, plerumque rectis, triseptatis non constrictis, vulgo 4-guttatis, fuligineis. 2471

Hab. in thallo Lecideæ platycarpæ pr. Paneveggio, Trentino Ital. bor.

LEPTOSPHÆRIA Ces. et De Not. — Syll. II p. 13, IX p. 762, XI p. 321, XIV p. 562, XVI p. 510.

I. *Eu-Leptosphæria:* in plantis vascularibus.

1. **Leptosphæria Vitalbæ** Niessl — Syll. IX, p. 765. — var. **sarmenticola** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 221. — A typo distinguitur; peritheciis minoribus 500 μ. diam.; ascis crassioribus, 170-200 × 19-22 sporidiisque quoque majoribus 40-50 × 8-9, 10-12-cellularibus. 2472

Hab. in sarmentis siccis Clematidis Vitalbæ, Luxemburg.

2. **Leptosphæria Papaveris** Rostr. Islands Svampe in Bot. Tidsskrift 1903, vol. 25, p. 305. — Peritheciis minutissimis 200 μ. diam., subgregariis; ascis oblongis, 55-70 × 11-13; sporidiis distichis, oblongis, utrinque obtusiusculis, 3-septatis, loculo secundo crassiore, pallide flavis 20-23 × 6-7. 2473

Hab. in caulibus Papaveris radicati in Islandia.

3. **Leptosphæria Cerastii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 221. — Peritheciis sparsis, subcutaneis, globoso-lenticularibus atro-brunneis 150-250 μ. diam., papilla minute erumpente; ascis clavatis, breve et crasse stipitatis, octosporis, filiformi-paraphysatis, 95 × 30; sporidiis oblongo-fusoideis, 2-3-stichis obtusulis, rectis curvulisve, plerumque 5-7-septatis, non v. vix constrictis, brunneolis 33-36 × 4. 2474

Hab. in caulibus siccis Cerastii arvensis, Luxemburg.

4. **Leptosphæria silvestris** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 162. — Peritheciis gregariis, immersis, dein erumpentibus, semiglobosis, nigris, 300 μ. diam., ostiolo obtuse conoideo; ascis clavatis, 51-65-78 × 7-8,5; sporidiis irregulariter 3-stichis, fusoideis, rectis v. curvulis, 6-cellularibus, medio constrictis, 6-guttulatis, initio subhyalinis, dein brunneo-flavidis, 13-15 × 3,5-4,5. 2475

Hab. in caulibus siccis Silenes inflatæ et Scabiosæ Columbariæ, Luxemburg.

5. **Leptosphæria corrugans** Rehm in Œst. Bot. Zeitschr. 1904, p. 84. — Peritheciis, in maculis suborbicularibus vel irregulariter oblongis, exsiccatis flavidulis, fusco-rubro-marginatis post destructionem parenchymatis folii papyraceis et rugulosis, 1-3 cm. latis, gregarie innatis, globosis, in epiphyllo papillula minima atra conspicua, in hypophyllo ut in epiphyllo hemisphærice prominentibus, nigris, ad basim hyphis creberrimis, subramosis, fuscis obsessis, parenchymatice nigro-fusco contextis 200-300 μ. diam.; ascis clavatis, 115-120 × 10-12 octosporis; sporidiis elongato-fusiformibus, rectis vix curvatulis, 9-septatis, cellula 3ª, interdum 4ª latiore, flavidulis 30-33 × 4,5-5, distichis; paraphysibus vix conspicuis. 2476

Hab. in foliis vivis Cytisi alpini, Rotweinklamm pr. Veldes Carniolæ (Voss).

6. **Leptosphæria fœniculacea** H. Fabr. — Syll. IX, p. 763. — var. **lupina** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 29, pl. V, fig. 12. — Peritheciis globoso-depressis, diu tectis, dein nudatis, sparsis v. subgregariis, minutissime papillatis, 350-420 μ. diam., glabris, nigris; contextu parenchymatico, fuligineo; ascis longe clavatis, stipitatis, 100-120 × 13,5-15,5, octosporis; paraphysibus filiformibus septulatis obvallatis; sporidiis subdistichis, fusiformibus, 3-4-septatis, non constrictis, sæpe inæqualibus v. curvulis, dilute olivaceis 28-30 × 4-5. 2477

Hab. in caulibus emortuis Lupini, socia *Phoma,* Disenchantment Bay Alaska (Trelease).

7. **Leptosphæria lupinicola** Earle Plantæ Bakerianæ, Fungi fasc. II, p. 20. — Peritheciis sparsis vel gregariis, tectis, dein erumpentibus, nigris, interdum rugulosis, non collapsis, 200-250 μ. diam., ostiolis valde papillatis donatis; ascis subcylindraceis 80 × 8; paraphysibus filiformibus; sporidiis subdistichis, cylindraceis, curvulis, nitide olivaceis 3-septatis, non constrictis, 25-30 × 4. 2478

Hab. in caulibus emortuis Lupini, Hermosa, South Colorado Amer. bor.

8. **Leptosphæria Trifolii** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 210. — Peritheciis gregariis subcutaneis globoso-depressis, nigro-brunneis 300-500 μ. diam., basi hyphis ramosis, septatis, brunneis cinctis, ostiolo minuto papillato erumpente; ascis tereticlavatis, longiuscule stipitatis 90-120 × 5,5-7 octosporis; sporidiis 1-2-stichis, oblongo-fusoideis, acutulis, rectis curvulisve, 4-cellularibus, eguttulatis v. pluriguttulatis, medio constrictis 20-28 × 2-3,5, flavido-brunneolis, cellula secunda crassiore. 2479

Hab. in caulibus siccis Trifolii medii, Luxemburg. — Inter *Leptosph. dumetorum* et *L. doliolum* fere media.

9. **Leptosphæria Sorbi** Jaczewski in Syd. Ann. Mycol. 1903, p. 30. — Maculis epiphyllis, magnitudine variis, subrotundatis, griseis; peritheciis paucis, globosis, epidermide velatis, ostiolo impresso pertusis; ascis fasciculatis, cylindraceo-clavatis, subsessilibus 55-60 × 12-14, paraphysatis; sporidiis distichis, fusoideis, rectis vel curvulis, 3-septatis, ad septa leniter constrictis, olivaceis, 25-30 × 4-5. 2480

Hab. in foliis Sorbi Aucupariæ, Smolensk in Sibiria ross.

10. **Leptosphæria Rostrupii** Sacc. et D. Sacc. *Leptosphæria Dryadis* E. Rostr. Norske Ascom. 1904, p. 24 (Vidensk. Skrift.). — Peritheciis numerosis, epiphyllis, globulosis, minutis; ascis 110-115 × 18-20; sporidiis oblongis, flavis, 25-30 × 8-10, triseptatis, loculo altero leniter prominulo. 2481

Hab. in pagina superiore foliorum exsiccatorum Dryadis octopetalæ, Kongsvold Norvegiæ (A. Blytt).

11. **Leptosphæria Dryadis** Rostr. Islands Svampe in Bot. Tidsskrift 1903, vol. 25, p. 305. — Peritheciis sparsis vel subgregariis, conoideis, ostiolo crasso parum prominulo, circiter 500 μ. latis; ascis cylindraceis 100-120 × 12-14; sporidiis oblique monostichis, cylindraceo-oblongis, rectis vel leviter curvulis, 3-5-septatis, guttulatis, ad septa leniter constrictis, loculo secundo crassiore, primitus hyalinis, dein fuscidulis 24-28 × 7-8; paraphysibus filiformibus, numerosis. 2482

Hab. in caulibus lignosis decorticatis et in fructibus Dryadis octopetalæ in Islandia. — Certe affinis præcedenti.

12. **Leptosphæria rhopographoides** Rehm, Hedw. 1902, p. (204) *Rhopographus caulincola* Oudem. Contr. Mycol. XVIII, pag. 712, Ned. Kr. Arch. Ser. 3, II, 3. — Peritheciis sub epidermide late denigrata nidulantibus, gregariis, globosis, haud distincte ostiolatis, parenchymatice contextis, subfuscis, epidermidem, hyphis fuscis, longis, subramosis, septatis, 5 μ. crassis, percursam et fusca- 2483

tam elevantibus, 300 μ. diam.; ascis clavatis, 70-80 × 10-12, octosporis; paraphysibus ramosis 2-3 μ. diam.; sporidiis fusiformibus, rectis vel subcurvatis, subacutis, 3-septatis, quaque cellula guttulis 2 parvulis oleosis instructis, hyalinis, dein dilute fuscescentibus 20-24 × 4-4,5.

Hab. in caulibus siccis Umbelliferæ cujusdam Valkenberg Hollandiæ.

13. **Leptosphæria norvegica** E. Rostr. Norske Ascom. 1904, pag. 24 (Vidensk. Skrift.). — Peritheciis sparsis; ascis clavatis 75 × 10; sporidiis 2-3-stichis, elongatis, rectis v. curvulis, flavis, 5-septatis, loculo subultimo crassiore, 28-30 × 5. 2484

Hab. in caulibus Brayæ alpinæ, Bardo Norvegiæ (A. Blytt).

14. **Leptosphæria Euphorbiæ** Niessl — Syll. II, p. 24. — var. **Esulæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 212. — Differt a typo peritheciis, ascis et sporidiis minoribus: peritheciis 200 μ. diam.; ascis 78-87 × 13; sporidiis 15,5-23 × 4-5,5, triseptatis, brunneis. 2485

Hab. in caulibus corticatis Euphorbiæ Esulæ, Luxemburg.

15. **Leptosphæria variegata** Peck in Rep. of the State botanist 1902, p. 31. — Peritheciis numerosis, minutis, depresso-globosis, in maculis indeterminatis roseis, griseis vel brunneis insidentibus, diu epidermide velatis, dein erumpentibus, nigris; ascis cylindraceis; sporidiis oblongis vel subfusiformibus, 3-septatis 18-20 × 4-5. 2486

Hab. in caulibus Phytolaccæ decandræ, prope Trenton Falls Amer. bor.

16. **Leptosphæria Pelargonii** Rehm, Hedw. XLIV (1905) fig. 2. — Maculis dealbatis exsiccatisque irregularibus, tenuissime fuscidule cinctis; peritheciis sparsis innatis, globulosis, nigris, ostiolo haud conspicuo c. 100 μ. diam., membranaceis; ascis clavatis, apice rotundatis, 60-65 × 8-9, 8-sporis; sporidiis cylindraceis, utrinque rotundatis, transverse 3, rarissime 4-septatis, haud constrictis, cellulis oleoso-guttatis, subfuscis, 12-14 × 3, in superiore asci parte distichis; paraphysibus ramosis 2. 2487

Hab. ad folium Pelargonii cult., Rio de Janeiro Brasiliæ (E. Ule). — Affinis *L. Tini* et *L. Physalidis* sed sporidiis rectis, obscurioribus et cylindraceis mox dignoscenda.

17. **Leptosphæria dolioloides** (Auersw.) Karst. — Syll. II, p. 44. — **var. Lathyri** Feltg. l. c. p. 164. — A typo præsertim differt peritheciis collabascentibus. 2488

Hab. in caulibus Lathyri (Orobi) nigri, Luxemburg. —

Var. **Rhinanthi** Feltg. l. c. — Distinguitur sporidiis longe fusiformibus 10-cellularibus, medio inter cellulas majores constrictis, curvulis, flavidis, 47-65 × 2-3. — In caulibus Rhinanthi sicccis, Luxemburg.

18. **Leptosphæria plectrospora** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 162. — Peritheciis gregariis epidermide pustulata tectis, conoideo-globosis, basi applanatis, rugulosis, 300-500 μ. d., ostiolo verruciformi v. globoso-conico erumpentibus; ascis tereti-clavatis, apice rotundatis, breviter stipitatis, 78-91 × 8, octosporis; sporidiis 1-2-stichis, fusoideis, vulgo curvulis, 5-(raro 6-7)-septatis, medio profunde constrictis, brunneo-flavis, 15-21 × 4-5, utrinque recte v. oblique appendicula calcarata, 5-7 × 1,5-2, hyalina auctis. 2489

Hab. in caulibus Galii Molluginis et Astragali glycyphylli, Luxemburg. — *L. appendiculatæ* affinis sed probe diversa.

19. **Leptosphæria luxemburgensis** Sacc. et D. Sacc. *L. dumetorum* Feltg. non Niessl. — var. **Symphyti** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, p. 211. — Peritheciis gregariis, tectis, globulosis, papillatis, 150-250 μ. diam.; ascis tereti-clavatis, 70-80 × 5,5-8; sporidiis 30-38 × 2,5-3, triseptatis. 2490

Hab. in caulibus Symphyti caucasici, Luxemburg. — var. **dolichospora** Feltg. l. c. p. 210. — A typo recedit ascis sporidiisque multo longioribus, nempe primis 80-100 × 5,5-8, alteris 30-40 × 2,5-4, triseptatis. — In ramis corticatis Sambuci racemosæ, Luxemburg. — A *L. dumetorum* certe diversa.

20. **Leptosphæria echiella** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 219. — Peritheciis sparsis v. gregariis, subcutaneis, vulgo in areis denigratis nidulantibus, globosis vel subellipsoideis, basi applanatis, nigricantibus, 200-300 μ. diam., ostiolo verruciformi-erumpente; ascis tereti-clavatis, breve stipitatis 130-150 × 16-19, (octosporis) vel 85-108 × 19 (tetrasporis), filiformi-paraphysatis; sporidiis 1-2-stichis, elliptico-fusiformibus, obtusis, rectis curvulisve, demum 3-5-septatis, ad septa constrictis, 30-35 × 8-8,5 flavo-brunneolis. 2491

Hab. in caulibus corticatis Echii vulgaris, Luxemburg. — Affinis *Leptosphæriæ planiusculæ.*

21. **Leptosphæria trematostoma** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 214. — Peritheciis sparsis, cortice nidulantibus, globoso-depressis, rugosis, atro-brunneis 500-600 μ. diam., hyphis brunneis, parcis cinctis, ostiolo depresso papillato-perforato erum- 2492

pente; ascis cylindraceis deorsum tenuato-stipitatis 115 × 9-10, octosporis; paraphysibus filiformibus, ramulosis, septatis, longe superantibus; sporidiis submonostichis, oblongo-ellipsoideis, utrinque rotundatis, vulgo rectis, constrictulo-3-septatis plerumque guttulatis, brunneis, 15-18 × 5-6,5.

Hab. in ramis corticatis Syringæ vulgaris, Sarothamni scoparii et Tiliæ europææ, Luxemburg. — Affinis *Leptosphæriæ Ribis.*

22. **Leptosphæria Basalduai** Speg. Myc. argent. ser. II, 1902, p. 71. 2493
— Peritheciis lenticulari-conoideis, carbonaceis, 350-400 μ. diam., ostiolo crassiusculo conoideo corticem perforante, sed non vel vix exserto donatis; ascis clavatis 100 × 20, antice obtuse rotundatis, postice breviter cuneato-pedicellatis, octosporis; paraphysibus filiformibus paullo longioribus; sporidiis monostichis, ellipticis v. leniter subovatis, 3-septatis, ad septa constrictulis, loculo majore supero et duobus apicalibus quandoque suboblique septatis, levibus, fuligineis.

Hab. ad ramos dejectos putrescentes Lippiæ seriphioidis, La Plata in Argentina.

23. **Leptosphæria Castilleiæ** Clements in Bull. of the Torr. Bot. Cl. 2494
1903, p. 85. — Peritheciis copiosis, numerosis, primitus tectis, deinde erumpenti-superficialibus, globosis, ostiolatis, vix conicis vel papillatis, glabris, 150-200 μ.; ascis octosporis, oblongis, paraphysatis, jodo non cærulescentibus, 80-100 × 8-14; sporidiis distichis, fusiformibus 3-4-septatis, curvulis raro rectis, acutis vel obtusis, ad septa leniter vel non constrictis, fusco-flavis 40-50 × 4; pycnidiis globosis 100-150 μ. diam., basidiis 10 × 1, sporulis oblongis, hyalinis 6-8 × 2.

Hab. ad caules emortuos Castilleiæ pallidæ, Ruxton Park Amer. bor. — A *L. ogilviensi* (B. et Br.) Ces. differt sporidiis 3-4-septatis, enucleatis, peritheciis erumpentibus, non papillatis, a *L. concinna* Ell. et Ev. peritheciis epapillatis, erumpentibus, sporidiis majoribus.

24. **Leptosphæria aquilana** D. Sacc. Mycoth. ital. n. 1485 (1904). — 2495
Peritheciis laxe gregariis, innatis, globulosis, 200-300 μ. diam., tantum ostiolo papillato vix erumpentibus, nigris, glabris; ascis tereti-clavatis, paraphysatis, octosporis; sporidiis distichis, tereti-fusoideis, utrinque obtusulis, 4-septatis, 40-50 × 6, luteolis minute 8-10-guttulatis, loculo secundo lenissime turgidiore, utrinque minute hyalino-apiculatis.

Hab. in caulibus emortuis Scrophulariæ spec. Tagliacozzo Aquila Ital. centr. Apr. 1904. — Ab affini *Lept. modesta* differt ascis sporidiisque majoribus et sporidiis sæpius 4-septatis, qua nota accedit ad *Lept. cylindrosporam,* quæ contra ascos 4-sporos habet.

25. **Leptosphæria Galeobdolonis** Feltg. Vorst. Pilz. Luxemb. Nachtr. 2493
III, 1903, p. 221. — Peritheciis approximatis, immersis, globoso-conoideis, basi applanatis, nigris 400–500 μ. diam., ostiolo obtuse conoideo, erumpente; ascis oblongo-clavatis, late rotundatis, breve stipitatis, 130–195 × 8-10, octosporis; sporidiis 1-3-stichis oblongo-fusoideis, obtusulis, vulgo curvis 5–7-septatis, medio constrictulis, flavis, 42-50 × 5–6, pluri-guttulatis.

Hab. in caulibus siccis Galeobdolonis lutei, Luxemburg.

26. **Leptosphæria Wegeliniana** Sacc. et Syd. — Syll. XIV, pag. 567. 2497
— f. **Teucrii** Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 222. A typo vix distinguitur peritheciis paullo minoribus 150-250 μ. diam., ostiolis conoideis sporidiisque inordinatis, 35–50 × 7–9, 10-12-septatis.

Hab. in caulibus siccis Teucrii Scorodoniæ, Luxemburg.

27. **Leptosphæria cæspitosa** Niessl — Syll. II, p. 35. — var. **Salviæ** 2498
Feltg. Vorst. Pilz. Luxemb. Nachtr. II, p. 161. — A typo præcipue differt peritheciis subsparsis nec cæspitosis.

Hab. in caulibus siccis Salviæ pratensis, Luxemburg.

28. **Leptosphæria astericola** Ell. et Ev. in Journ. of Mycol. 1902, 2499
vol. 8, p. 17. — Peritheciis erumpenti-superficialibus, globosis, planiusculis v. concavis, subseriatis 2–3 confluentibus; ostiolo papilliformi; ascis subcylindraceis, breve-stipitatis, paraphysatis, 80-110 × 7-8; sporidiis distichis, fusoideis, paullo curvatis, 3-septatis, non constrictis, luteolis 30-40 × 3-4; pycnidiis forma peritheciorum simillimis; sporulis oblongis v. oblongo-ellipticis, 6-8 × 2,5-3, hyalinis, 1-septatis.

Hab. in caulibus emortuis Asteris multiflori, Rooks, County, Kansas Amer. bor. (Bartholomew). — *L. fusisporæ* Niessl et *L. leptosporæ* De Not. affinis.

29. **Leptosphæria dumetorum** Niessl — Syll. II, p. 15. — var. **coni-** 2500
formis Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 159. — Peritheciis hemisphæricis in ostiolum obtuse conoideum sensim abeuntibus, atro-nitidis; ascis tereti-clavatis, 65-68 × 3,5-5,5; sporidiis fusoideis, rectis curvulisve, utrinque acutulis, 4-cellularibus, 15-18 × 2,5-3,5, cellula secunda vel binis interioribus paullo crassioribus, flavo-brunneolis.

Hab. in caulibus Senecionis Fuchsii, Luxemb. Cfr. n. 19.

30. **Leptosphæria planiuscula** Ces. et De Not. — Syll. II, p. 32. — 250
var. **Saccisæ** Feltg. l. c. pag. 161. — A typo differt sporidiis 5-7-septatis sursum curvatis acutis, deorsum rectiusculis, æque acutis, flavido-brunneolis, 40-42 × 7-8.

Hab. in caulibus Succisæ pratensis, Luxemburg.

31. **Leptosphæria Phyteumatis** (Fuck.) Wint. — Syll. II, p. 37. — 250
var. **Knautiæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, p. 164. — A typo præsertim diversa peritheciis omnino glabris; ascis 55-85 × 7-9; sporidiis 5-7-septatis 21 × 2,5-4, flavo-brunneis.

Hab. in caulibus Knautiæ arvensis, Luxemburg.

32. **Leptosphæria fuscella** (B. et Br.) Ces. et De Not. — Syll. II, p. 30, 250
— var. **Hippophaës** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 212. — A typo differt matrice dealbata; peritheciis exacte globosis, rarius subdepressis, 250-500 μ. diam.; ascis majoribus 115-150 × 13-14; sporidiis quoque majoribus, 19-22 × 9,5-11 non constrictis læte flavis, triseptatis.

Hab. in ramis corticatis Hippophaës rhamnoidis, Luxemburg.

33. **Leptosphæria petiolaris** Feltg. Vorstud. Pilz. Luxemb. Nachtr. 250
III, 1903, p. 216. — Peritheciis subsparsis, subcutaneis, globosodepressis, 170-200 μ. diam., papilla obtusa emergente; ascis clavatis, breve et crasse stipitatis, octosporis, 75-80 × 14-16, filiformi-paraphysatis; sporidiis 2-3-stichis, elliptico-fusoideis, obtusis, rectis curvulisve, 4-cellularibus non v. vix constrictis, 22-23 × 5,5-7 e flavo-olivaceis, cellula secunda paullo crassiore, eguttulatis vel pauci-guttulatis.

Hab. in petiolis siccis Juglandis regiæ, Luxemburg.

34. **Leptosphæria Valdobbiæ** Ferraris, Malp. 1904, p. 488, tab. IX, 250
f. 1. — Peritheciis sparsis in maculis candidis orbicularibus fusco-marginatis sparse epiphyllis, nigris, 250-350 μ. diam., membranaceis pertusis; ascis clavatis, 55-60 × 10, paraphysibus angustis obvallatis, octosporis; sporidiis subdistichis, oblongo-fusoideis, 3-5-septatis, olivaceis, interdum guttulatis, rectis curvulisve 30-35 × 3.

Hab. in foliis Fagi silvaticæ, Riva Valdobbia Ital. bor. (Carestia).

35. **Leptosphæria desciscens** Oud. Beih. Bot. Centr. 1902, pag. 5. 250
— Peritheciis numerosis, gregariis, primo epidermide velatis, denique expositis, conico-depressis, basi applanatis, 250-350 μ. diam., nigris, solidiusculis, rostro cylindrico altitudinem partis ascigeræ

fere æquante, pilis decumbentibus, late repentibus, dense intricatis, olivaceo-fuscis, ramosis, anastomosantibus, 3–5 μ. latis, involutis; ascis elongato-clavatis, longe pedicellatis, octosporis, 115-120 × 10-12; sporidiis fusiformibus, curvatis, utrinque acutis, 7 v. 8-septatis, 50-55 × 3,5, maturis isabellinis.

Hab. in caulibus plantæ ignotæ, Valkenberg Hollandiæ.

36. **Leptosphæria agnita** (Desm.) De Not. et Ces. — Syll. II, p. 40. 2507
var. **labens** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 30, pl. V, fig. 11. — A typo differt perithecii in macula flavida paullo majoribus (5 mm. diam.) facile collabentibus; sporidiis non diversis.

Hab. in caulibus herbaceis, Unalaska Alaska (Trelease).

37. **Leptosphæria Cocoes** d'Alm. et Da Cam. in Revista Agron. Li- 2508
boa, 1905, p. 384, tab. II, f. 5-7. — Perithecis sparsis epidermide tectis, subglobosis, atris, poro pertusis, 90-150 μ. diam.; ascis subcylindricis, breve stipitatis, 80-100 × 12-15; sporidiis cylindraceis, utrinque rotundatis, monostichis v. subdistichis, biseptatis ad septa, præcipue inferius, constrictis, fulvis.

Hab. in foliis Cocoes Romanzoffianæ in horto botanico Coimbra Lusitaniæ sociis *Coniothyrio palmicolo* et *Phyllosticta Cocoes* (A. Moller).

38. **Leptosphæria Dracænæ** S. Cam. in J. V. D'Almeida, Contrib. à 2509
la Mycoflore du Portugal, 1903, p. 26. — Perithecis subtectis, prominulis, sparsis v. confluentibus, ostiolo simplici pertuso, atris, ovalibus, 130-190 × 115-170; ascis numerosis, paraphysatis, breviter stipitatis, octosporis, clavato-oblongis, apice rotundatis, 75-80 × 8-10; sporidiis distichis, oblongo-fusoideis, rectis curvulisve, subflavescentibus, 4-septatis, tenuiter constrictis, 16,5-17,5 × 3,5-4.

Hab. in foliis emortuis Dracænæ Draconis, in horto Inst. agrarii, Lisboa Lusitaniæ (Castro Guedes).

39. **Leptosphæria Veratri** Earle, Plantæ Bakerianæ, fasc. II, Fungi 2510
p. 20. — Perithecis sparsis, tectis, 250-350 μ. diam., ostiolo papillato, erumpente donatis; contextu e cellulis parenchymaticis, 8-10 μ. diam. formato; ascis clavatis, substipitatis, 100 × 10; paraphysibus numerosis, filiformibus; sporidiis subdistichis, nitide luteis, 3-septatis, valde constrictis, utrinque rotundatis, 20-25 × 5.

Hab. in caulibus emortuis Veratri spec, Pagosa Peak, South Colorado Amer. bor.

40. **Leptosphæria? microthyrioides** Feltg. Vorstud. Pilz. Luxemb. 2511
1901, Nachtr. II, pag. 154. — Perithecis sparsis, immersis, udis globoso-depressis, siccis concavis, 150-200 μ. diam., papilla pun-

ctiformi basique hyphis radiantibus, septatis, 4-6 μ. cr., donatis atro-brunneis; ascis oblongo-cylindraceis v. clavatis, apice rotundatis deorsum tenuatis, subsessilibus, 24-36 × 5,5-6, octosporis, crassiuscule septato-paraphysatis; sporidiis distichis v. inordinatis elliptico-fusoideis, utrinque rotundatis, rectis curvulisve, 3-septatis, leniter constrictis, brunneo-flavidis, 8-10 × 2,6.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg. — Contextus parenchymaticus, radians, atro-cyanescens, microthyriaceus; hinc species in genere dubia.

41. **Leptosphæria monilispora** (Fuck). Sacc. — Syll. II, pag. 79. — 2512
f. **Triglochinis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 208. — A typo recedit peritheciis nondum liberis, 100-200 μ. diam.; ascis clavato-fusoideis 136 × 18-20; sporidiis flavo-brunneis, profunde constrictis 8-9-septatis, 33-40 × 7-8.

Hab. in caulibus Triglochinis palustris, Luxemburg.

42. **Leptosphæria Stratiotis** Oud. Beih. Bot. Centr. 1902, pag. 6. — 2513
Peritheciis sparsis, atris, sub epidermide occultatis, tandem ostiolo hiantibus; ascis cylindraceis 90-100 × 10-12, apice rotundatis, octosporis; sporidiis distichis, oblongis, curvatis, læte olivaceis, utrinque rotundatis, 3-septatis, 20-30 × 6-7.

Hab. in foliis Stratiotis aloidis, Nunspect Hollandiæ.

43. **Leptosphæria Junci** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2514
II, p. 156, III, p. 206, et I, 1899, p. 253, sub *Leptosphæria* spec. n. 764. — Peritheciis dense sparsis minutissimis, ostiolo papillato epidermidem perforante; ascis tereti-clavatis v. elongato-ellipticis, 104-120 × 22-26, subsessilibus; sporidiis fusiformibus 29 × 5, di-tristichis, plerumque curvulis, constanter 6-cellularibus, ad septa leniter constrictis, flavidis, cellula tertia paullo crassiore.

Hab. in calamis siccis Junci effusi, Luxemburg.

44. **Leptosphæria Pandani** Fl. Tassi in Bull. Lab. Ort. Bot. Sien. 1904, 2515
p. 125. — Peritheciis sparsis gregariisve, globosis, ostiolo papillato epidermidem perforante non v. vix exserto donatis, coriaceis, nigris, contextu atro indistincto 500-600 μ. diam.; ascis cylindraceis vel subclavatis, apice rotundatis, basi modice attenuatis, abrupte pedicellatis, 100-110 × 16-18, octosporis, paraphysibus filiformibus copiosis obvallatis; sporidiis distichis v. partim monostichis, subfusoideis, initio didymis, dein 3-septatis, loculo tertio paullulo crassiore, guttatis, 24-28 × 8-10, fusco-fuligineis.

Hab. in foliis vaginisque exsiccatis Pandani utilis, in calidario horti botanici Siena Italiæ centr.

45. **Leptosphæria iridigena** Fautr. — Syll. XIV, p. 568. — f. **Typhæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 206. — A typo differt tantum ostiolo non pertuso; ascis magis regularibus; sporidiis subconstrictis minute granulosis, utrinque tenuatis, 40–48 × 5–6, 5-septatis. 2516

Hab. in foliis Typhæ angustifoliæ, Luxemburg.

46. **Leptosphæria rivalis** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 157, I, 1899, p. 256, sub *Leptosphæria* spec. n. 775. — Perithecis sparsis, epidermide tectis, globoso-depressis, 200-300 μ. diam. nigris, ostiolo late papillato erumpente; ascis clavatis, subsessilibus, 123 × 21-24; sporidiis 2-3-stichis, exacte fusiformibus, curvulis, utrinque obtusulis 10-12-septatis constrictisque, plerumque 11-13-guttulatis, dilute flavidis vel brunneolis, 35–45 × 8–10. 2517

Hab. in culmis foliisque Caricis paludosæ, Luxemburg.

47. **Leptosphæria cariciphila** Oud. in Ned. Kruidk. Arch., 3 Ser. II, 4, pag. 870, 1903. — Peritheciis membranaceis, translucentibus, brunneis, 10-70 μ. diam.; ascis 35 × 12, octosporis; sporidiis distichis, cylindraceis, rectis vel curvulis, fulvis, utrinque rotundatis, 2- vel raro 3-septatis, 16-21 × 4-7, ad septa non constrictis; paraphysibus parum numerosis. 2518

Hab. in bracteis Caricis arenariæ, Nunspect Hollandiæ (Beins).

48. **Leptosphæria sparsa** (Fuck.) Sacc. — Syll. II, p. 77. — var. **meizospora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 207. — A typo differt imprimis sporidiis multo majoribus 31-40 × 6-7,5, 6-8, rarius 9-septatis. 2519

Hab. in culmis Brachypodii et foliis Caricis et Sparganii, Luxemburg.

49. **Leptosphæria microscopica** Karst. — Syll. II, pag. 59. — var. **flavo-brunnea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 205. — A typo differt peritheciis flavo-brunneis basi hyphis diu cinctis, paullo crassioribus 100-150 μ. diam., ascis quoque majoribus 100-108 × 13-16 sporidiisque pariter majoribus 23-30 × 5,5-7, cellulis secunda et tertia crassioribus, triseptatis. 2520

Hab. in culmis Moliniæ, Poæ, Glyceriæ, Luxemburg. — var. **Caricis-vulpinæ** Staritz in litt. — A typo dignoscitur ascis usque 90 × 18-22, sporidiisque 34 × 10. — In Carice vulpina, Anhalt.

II. *Xenosphæria* Trev. Species lichenicolæ, parasiticæ.

50. **Leptosphæria consocians** (Nyl.) Sacc. et D. Sacc. *Mycoporum consocians* Nyl. Flora 1872, p. 364. — Peritheciis nigris, verrucarioideis, 50-80 μ. diam.; ascis octosporis, indistincte paraphysatis; sporidiis 4-cellularibus, nigricantibus, 10-11 × 5-6. 2521

Hab. in thallo Biatoræ vernalis in Lapponia orientali. — Asci jodo colore roseo-violaceo tincti.

51. **Leptosphæria oligospora** (Wainio) Sacc. et D. Sacc. *Xenosphæria oligospora* Wain. Adj. II, p. 203. — Peritheciis omnino v. semiimmersis apice impressis, 200 μ. diam., nigris; ascis tereti-clavatis 4-sporis filiformi-paraphysatis; sporidiis oblongo-fusoideis, 4-cellularibus ad septa constrictulis, atro-brunneis, 22-31 × 8-10. 2522

Hab. in thallo Solorinæ croceæ in silvis Lapponiæ Sodankylensis.

52. **Leptosphæria Rivana** (De Not.) Sacc. — Syll. II, p. 83. — f. **Solorinæ** Rehm in Œst. Bot. Zeitschr. 1904, p. 84. — Sporidiis 3-septatis, 24–27 × 8–10, fuscis. 2523

Hab. in thallo Solorinæ croceæ, Finsterthaler See, prope Kühtai (Oetz) in Tirolia.

53. **Leptosphæria Arnoldi** Rehm in Œst. Bot. Zeitschr. 1904, p. 84. — Peritheciis gregarie dispersis, basi latis, sessilibus, globulosis, 90-100 μ. diam., nigris, glabris, poro perspicuo pertusis, subcarbonaceis; ascis fusiformibus, apice valde incrassatis, sessilibus 36-40 × 12-14, octosporis; sporidiis oblongo-clavatis, obtusis, 3-septatis, cellula secunda latiore, dilute fuscidulis 10-12 × 3,5, distichis; paraphysibus subramosis. 2524

Hab. in thallo Peltigeræ malaceæ, fuscato, prope Paneveggio Tiroliæ austr. (Doct. Arnold).

54. **Leptosphæria neottizans** (Leight.) Zopf, Hedw. 1896, p. 361, *Verrucaria neottizans* Leight. Brit. Lich. Fl. p. 497. — Peritheciis minutis, confertis, sphærico-conicis, nigris, subcarbonaceis; ascis 4-sporis, distincte paraphysatis; sporidiis 4-cellularibus, ad septa constrictis, brunneis, 24,5–25 × 8,5–9, lineari-oblongis. 2525

Hab. in thallo Sphyridii byssoidis in Britannia.

55. **Leptosphæria tartarina** (Nyl.) Zopf, Hedw. 1896, p. 341, *Verrucaria tartarina* Nyl. Flora 1874, p. 15, 318, *Sphæria verrucarioides* Norm. teste Nyl. — Peritheciis nigris, 250 μ. diam., convexo-prominulis; ascis octosporis; sporidiis fusoideis, 4-cellularibus, 14-18 × 4,5. 2526

Hab. in thallo Ochrolechiæ tartareæ in alpe Dovre Norvegiæ (Letterstedt).

56. **Leptosphæria Umbilicariæ** (Linds.) Sacc. et D. Sacc. *Microthelia Umbilicariæ* Linds. Obs. p. 538, t. XXIII et XXIV, tab. 3, f. 31. — Peritheciis nigris, papilliformibus, sat versiformibus, semiimmersis; ascis saccatis, paraphysibus tenuissimis obvallatis, jodo violascentibus; sporidiis ovoideis vel late ellipsoideis 1-2-septatis, non constrictis, maturis saturate brunneis, subtristichis. 2527

Hab. in thallo Umbilicariæ pustulatæ in Britannia.

57. **Leptosphæria geographicola** (Arn.) Sacc. et D. Sacc. *Phæospora geographicola* Arnold in Zopf Hedw. 1896, p. 356. — Peritheciis innatis, vertice lato nigro; ascis 5-6-8-sporis; paraphysibus longis, crassiusculis; sporidiis 5-pluricellularibus, 11-27 × 7-10, brunneis. 2528

Hab. in thallo Rhizocarpi geographici in Germania.

58. **Leptosphæria pycnostigma** (Nyl.) Sacc. et D. Sacc. *Verrucaria pycnostigma* Nyl. Flora 1869, p. 297, Hue Add. Nyl. p. 298. — Peritheciis integris, nigris, innatis, parte supera prominulis; sporidiis ellipsoideo-oblongis, 3-septatis, fuligineis, 21-24 × 8-9; gelatina hymenæa jodo immutata. 2529

Hab. in thallo Sphyridii byssoidis in Gallia occidentalis.

59. **Leptosphæria advenula** (Nyl.) Sacc. et D. Sacc. *Verrucaria advenula* Nyl. Flora 1865, p. 606. — Peritheciis erumpentibus minimis, atris; ascis octosporis aparaphysatis; sporidiis oblongis, 3-septatis ad septa sæpius constrictulis, 15-20 × 6-8, demum fuscescentibus. 2530

Hab. in thallo Diplotommatis excentrici in Hibernia et Italia bor.

LEPTOSPHÆRIOPSIS Berl. — Syll. XI p. 321.

1. **Leptosphæriopsis ophioboloides** (Sacc.) Berl. — Syll. XI, p. 321. — var. **Achilleæ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 175. — A typo dignoscitur peritheciis paullo minoribus 250-300 μ. diam., sæpe ellipticis et basi hyphis brunneis, septatis, cinctis sporidiisque acutis, ad septa constrictis, jugiter? hyalinis, 110-120 × 5-6. 2531

Hab. in caulibus siccis Achilleæ Millefolii, Luxemburg. — var. **Euphorbiæ** Feltg. l. c. p. 176: dignoscitur peritheciis minoribus 250 μ.; ascis brevioribus et crassioribus 70 × 18-21 et sporidiis brevioribus 34-40 × 4-4,5, flavo-brunneis. — In caulibus corticatis Euphorbiæ Esulæ, Luxemburg. An specifice diversæ?

MASSARIA De Not. — Syll. II p. 2, IX p. 759, XI p. 319, XIV p. 561, XVI p. 510.

1. **Massaria marginata** Fuck. Sacc. — Syll. II, p. 9. — var. **aquilana** D. Sacc. Myc. ital. n. 1486. — A typo differt ascis majoribus 175-200 × 27-30 sporidiisque majoribus, 30-38 × 13-15, pariter constricto-3-septatis, loculis extimis pallidioribus, strato mucoso obductis. 2532

Hab. in ramis Berberidis vulgaris prope Celano, Aquila Italiæ centr.

REBENTISCHIA Karst. — Syll. II 12, XIV p. 562.

1. **Rebentischia thujana** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 223. — Peritheciis sparsis, innato-erumpentibus demum subliberis, globosis, atro-brunneis, glabris, crassiusculis, 100-150 μ. diam., ostiolo breve conico-cylindraceo; ascis crasse clavatis 80-87 × 16-22, basi tenuatis, octosporis, filiformi-paraphysatis; sporidiis 2-4-stichis, clavatis, rectis curvulisve, pluri-guttulatis, demum 4-septatis, vix constrictis, 27-30 × 7-8, brunneis, appendicula apicali curvula cylindracea, hyalina, 10-18 μ. longa auctis. 2533

Hab. in ramulis corticatis Thujæ orientalis, Luxemburg.

CLYPEOSPHÆRIA Fuck. — Syll. II p. 90, IX p. 798, XI p. 326, XIV p. 572, XVI p. 518.

1. **Clypeosphæria Aceris** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 161. — Peritheciis crebre gregariis, vulgo seriatis, epidermide denigrata diu tectis, globoso-depressis, 400-500 μ. diam., papilla minuta erumpente; ascis tereti-clavatis, stipitatis, octosporis, filiformi-paraphysatis, 68-80 × 10; sporidiis 1-2-stichis, oblongo-ellipsoideis, obtusis, rectis, triseptatis, non constrictis, brunneis 18 × 6,5. 2534

Hab. in ramis corticatis Aceris campestris, Luxemburg.

2. **Clypeosphæria pseudobufonia** Rehm, Ann. Mycol. 1904, p. 176. — Peritheciis dispersis, e cortice emersis, primitus plane cinereo obtectis, dein lenticulariter prominentibus, minutissime papillatis, poro vix conspicuo pertusis, globulosis, glabris, atris, carbonaceis 0,5-1 mm. diam.; ascis cylindraceis 90-100 × 9-10, octosporis; sporidiis ellipsoideis, utrinque rotundatis, 3-septatis, cellulis mediis majoribus, pallide fuscidulis, strato mucoso non obductis, 12-14 × 6-7, mono-distichis; paraphysibus filiformibus. 2535

Hab. ad corticem Quercus in mt. Spanish, Texas Amer. bor. (Long). — Proxima *Clyp. massariosporæ* Sacc., peritheciis minori-

bus, haud rugosiusculis, sporidiis non striolatis nec muco obductis, minoribus differt.

MELANOMMA Nits. et Fuck. — Syll. II p. 98, IX p. 801, XI p. 327, XIV p. 573.

1. **Melanomma pleurostomum** (Rehm) Berl. — Sacc. Syll. II, p. 119 (*Trematosphæria*). — var. **cistinum** Sacc. in Annal. Mycol. 1903, p. 431. — A typo differt sporidiis utrinque acutiusculis, 25-30 × 7-8, loculis extimis vix pallidioribus. 2536

Hab. in ramis Cisti spec., prope Sassari Sardiniæ (A. N. Berlese). — Ob exemplaria immatura diagnosis paululum dubia est.

2. **Melanomma Rhododendri** Rehm — Syll. II, p. 109. — var. **microsporum** Ferraris, Malp. 1904, p. 489. — A typo recedit ascis brevioribus 96-100 × 7-8; sporidiis paullo minoribus 14-17 × 5. 2537

Hab. in gemmis Rhododendri ferruginei Riva Valdobbia Ital. bor. (Carestia).

3. **Melanomma mutabile** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 214. — Peritheciis gregariis, hinc inde dense approximatis, initio subcutaneis, mox erumpentibus liberisque, hyphulis brunneis tenuibus cinctis, atris, globosis, membranaceo-firmis, 300-400 μ. diam., ostiolo papillato v. breve conoideo; ascis tereti-clavatis v. cylindricis, apice rotundatis, breve stipitatis, 47-73 × 6-8 (cylindricis 91 × 6-8), 6-8-sporis; sporidiis 1-2-distichis, oblongo-ellipsoideis, utrinque rotundatis, 4-cellularibus, ad septa, præcipue medium, constrictis, dilute olivaceo-brunneis, 10-13 × 3-5; paraphysibus filiformibus, ramosis, sursum 2 μ. cr. 2538

Hab. in caulibus siccis Solani Dulcamaræ, Luxemburg. — Sporidia initio bilocularia, hyalina.

4. **Melanomma herpotrichum** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 296. — Peritheciis sparsis, hemisphæricis, superficialibus, 500 μ. diam., a medio ad basim hyphis brunneis repentibus vestitis, papilla obtusa; ascis tereti-clavatis 125-145 × 10-15, octosporis; sporidiis submonostichis, olliptico-fusoideis, obtusis, 3-5-septatis, medio constrictis, vulgo rectis, flavo-brunneis, 18-23 × 5,5-7,5. 2539

Hab. in ramis decorticatis Populi, Luxemburg. — Ad subgenus *Chætomastiam* spectat.

TREMATOSPHÆRIA Fuck. — Syll. II p. 115, IX p. 811, XI p. 329, XIV p. 575, XVI p. 524.

1. **Trematosphæria Lupini** Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 17. — Peritheciis sparsis, nigris, carbonaceis, liberis, basi subimmersis, sphæricis v. interdum elongatis 250-350 μ. diam., ostiolo parce papillato, pertusis; ascis numerosis, clavato-cylindraceis, breve stipitatis, 80 × 8; paraphysibus filiformibns, numerosis; sporidiis distichis vel irregulariter dispositis, utrinque acutis, pallide brunneis, 5-7-septatis, 30-40 × 4. 2540

   Hab. in caulibus vetustis Lupini, Hermosa South Colorado Amer. bor.

2. **Trematosphæria alpina** Ferraris in Malpighia 1902, p. 453, t. X, f. 3. — Peritheciis superficialibus, basi ligno insculptis, carbonaceis, subhemisphæricis, sparsis, atris; ascis elongato-clavatis, basi attenuatis, 96 × 12; sporidiis distichis vel oblique monostichis, fuscis, fusoideis, rectis v. leniter curvulis, 5-septatis, ad septa constrictis 21-24 × 6-7; paraphysibus filiformibus. 2541

   Hab. in sarmentis siccis Rosæ villosæ var. pomiferæ, St. Didier Italiæ bor.

3. **Trematosphæria Cactorum** Earle in New York Bot. Gard. 1902, p. 347. — Peritheciis sparsis vel gregariis, conico-sphæroideis, rugosis, nigrescentibus 130-180; ostiolo indistincto; ascis subcylindraceis, breve stipitatis, 100-120 × 8-10; paraphysibus filiformibus; sporidiis longitudinaliter monostichis, ovato-oblongis, fuscis, 3-septatis, utrinque obtuse conicis, 20-25 × 7. 2542

   Hab. in aculeis Cerei spec., Stanford University Californiæ.

4. **Trematosphæria Chrysothamni** Earle, Plantæ Bakerianæ fasc. II, Fungi, p. 16. — Peritheciis sparsis vel interdum dense gregariis in maculis parvulis insidentibus, nigris, lucentibus, carbonaceis subsphæricis, superne paullum applanatis, 250 μ. diam. ostiolo minuto papillatis; ascis clavatis 70-80 × 8-10, paraphysibus filiformibus, luteolis obvallatis; sporidiis distichis, brunneis, fusiformibus, sæpe curvis, 2-4-septatis, interdum ad septa constrictis, 16-20 × 4-5. 2543

   Hab. in caulibus decorticatis Chrysothamni, Hermosa, Colorado Amer. bor.

5. **Trematosphæria clavispora** Ell. et Ev. in Journ. of Mycol. 1903, p. 166. — Peritheciis superficialibus, ovato-conicis, rugosulis 500-750 μ. diam.; ascis clavato-cylindraceis, pedicellatis, p. sp. 70-75 × 11-13; paraphysibus numerosis, filiformibus; sporidiis distichis, 2544

clavato-fusoideis, subcurvulis, 6-septatis, secundo et tertio septo leviter constrictis, subhyalinis, dein luteo-brunneis.

Hab. in caulibus emortuis Artemisiæ tridentatæ, Steamboat Springs, Colorado Amer. bor.

6. **Trematosphæria Fendleræ** Earle, Plantæ Bakerianæ fasc. II, Fungi p. 17. — Maculis nigrescentibus; peritheciis sparsis vel gregariis, prominentibus conico-mamillatis, brunneo-nigris, basi rugosis, carbonaceis, non collapsis, 500 μ. diam. vel majoribus; ascis subcylindraceis, 60-80 × 18, paraphysibus filiformibus obvallatis; sporidiis distichis vel oblique monostichis, ellipticis, sæpe curvulis, brunneo-nigris, 3-septatis, parce constrictis, 20-25 × 6. 2545

Hab. in ramis decorticatis Fendleræ, South Colorado Amer. borealis.

7. **Trematosphæria Juniperi** Tracy et Earle, Plantæ Bakerianæ fasc. I, Fungi p. 31. — Peritheciis sparsis, subliberis, suborbicularibus, nigris, carbonaceis, non collapsis 0,5 mm. et ultra diam., ostiolo tuberculato, prominente, nigro donatis; ascis clavatis, breve stipitatis, facile evanescentibus, 100 × 10; paraphysibus numerosis, filiformibus, guttulatis; sporidiis oblique monostichis v. subdistichis, fuligineis, obtuse fusiformibus v. subcylindraceis sæpe, curvis 5-7-septatis, interdum constrictis ad septum medium, 30-35 × 6-8. 2546

Hab. in ligno ab ætate corrupto Juniperi monospermæ, Mancos, Colorado Amer. bor.

8. **Trematosphæria megalospora** (De Not.) Sacc. — Syll. II, p. 120. — f. **Quercus** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 273. — A typo differt ascis brevioribus 108-124 × 16-20 et sporidiis angustioribus 35-43 × 8-10, maturis 8-septatis. 2547

Hab. in cortice putrescente Quercus, Luxemburg.

9. **Trematosphæria faginea** Morgan, Journ. of Mycol. 1904, p. 161. — Peritheciis gregariis semiimmersis, ovoideis, glabris, nigris, 400 × 500 μ. diam., ostiolo simplici poro minuto pertuso; ascis cylindraceis, 8-sporis, longe filiformi-paraphysatis, breve stipitatis, 110-128 × 11-13; sporidiis oblique monostichis, elliptico-oblongis, initio hyalinis, demum fuscellis, 3-septatis, 14-17 × 8-10. 2548

Hab. in truncis prostratis Fagi, Preston, Ohio Amer. bor.

TREMATOSPHÆRIOPSIS Elenkin in Bull. du Jard. bot. St. Petersb. 1901, p. 146 (Etym. *Trematosphœria* et *opsis* aspectus). — Stroma ex hyphis crebre contextis, jodo lutescentibus quasi plectenchyma formantibus conflatum. Perithecia stromate immersa, ovoidea. Asci

octospori, paraphysati. Sporidia elongato-fusoidea 2-pluriseptata, dilute colorata. Gonidia (propria?) pleurococcoidea continet.

1. **Trematosphæriopsis parmeliana** Jacz. et Elenk. l. c. cum icon. — 2549
Peritheciis aggregatis immersis, ovoideo-piriformibus v. subrotundatis, poro pertusis; ascis cylindraceis, stipitatis 80-85 × 16-20, copiose filiformi-paraphysatis, octosporis; sporidiis distichis fusoideis, rectis curvulisve, 30 × 6-8, quadrilocularibus, ad septa non v. vix constrictis ex hyalino luteolis.

Hab. in thallo Parmeliæ molliusculæ v. vagantis Nyl. in Rossia.

OHLERIELLA Earle in New York Bot. Gard. 1902, p. 349 (Etym. ab *Ohleria*, cui affine genus). — Perithecia ut in *Amphisphæria*. Asci elongati, initio octospori, dein polyspori. Sporidia initio hyalina multiseptata, dein brunnea et in loculos singulos secedentia. — Ab *Ohleria* dignoscitur, quia loculi singulatim nec binatim secedunt.

1. **Ohleriella neo-mexicana** Earle l. c. — Peritheciis dense sparsis, 2550
nigris, hemisphæricis, erumpentibus, basi fibrillis tectis, ostiolatis papillatisque 500-750 μ. diam.; ascis latis, stipitatis, subcylindraceis maturitate 48-sporis, 150-200 × 25-30, paraphysibus filiformibus valde adnatis; sporidiis tristichis, initio cylindraceis, hyalinis 5-septatis, maturitate intense brunneis, opacis, simplicibus, subquadrangularibus, 8 μ. diam.

Hab. in caulibus siccis, Albuquerque, New Mexico Americæ.

CHÆTOSPHÆRIA Tulasne. — Syll. II p. 92, IX p. 799, XI p. 326, XIV p. 572, XVI p. 521.

1. **Chætosphæria Thalictri** Clements in Bull. of the Torrey Bot. Club. 2551
1903, p. 83. — Peritheciis solitariis v. laxe gregariis, superficialibus, globosis, ostiolatis, distincte papillato-depressis, pilis flexuosis brunneis 100 × 3, dense setulosis 200-300 μ. diam.; ascis octosporis, clavatis, paraphysatis, jodo cærulescentibus 90-100 × 10; sporidiis distichis, fuscis, fusiformibus 3-5-septatis, sæpius 4-septatis et loculo secundo turgido, ad septa leniter constrictis, 30-35 × 4-5; pycnidiis globosis, glabris 200-300 μ. sporulis hyalinis, continuis, oblongis, 6-8 × 1,5.

Hab. in caulibus emortuis Thalictri sparsiflori, Minuchaha Colorado Amer. bor.

2. **Chætosphæria incrustans** Rick, Broteria 1904, p. 289. — Stromate 2552

hyphis ferrugineis setulisqus inter se arcte aggregatis formato; peritheciis orbicularibus, vix 1 mm. diam., nigris, rugulosis, ostiolo minusculo, gregariis, ligna v. corticem pulvere nigro late incrustantibus; ascis cylindricis 70 × 12, octosporis, filiformi-paraphysatis; sporidiis fusoideis, brunneo-fuscis, 3-septatis, 25-30 × 5-6, curvulis, cellulis extimis hyalinis, ad septa vix constrictis.

Hab. ad ligna emortua et cortices, Rio Grande do Sul Brasiliæ.

SPORORMIA De Not. — Syll. II p. 123, IX p. 816, XI p. 329, XIV p. 577, XVI p. 526.

1. **Sporormia dakotensis** Griff. Mem. Torr. Bot. Cl. 1901, p. 114, tab. XV, fig. 7-9. — 2553
Peritheciis sparsis vel aggregatis, immersis globulosis 700-800 × 350-450, tenui-membranaceis, demum opace nigris, ostiolo longo, cylindrico, recto, curvulo vel varie contorto; ascis octosporis clavatis apice rotundatis, longe stipitatis 90-110 × 8-11; paraphysibus filiformibus copiosis, septatis, ascos superantibus; sporidiis 2-3-stichis, cylindraceis, rectis curvulisve, utrinque rotundatis 22-24 × 3-4, quadriarticulatis, profunde constrictis et facile secedentibus, strato mucoso angustissimo obvolutis.

Hab. in fimo equino et bovino, Brookings, Biloxi et Great Falls Amer. bor.

2. **Sporormia longipes** Mass. et Salm. Coproph. fungi, I, p. 346, fig. 1. 2554
— Peritheciis sparsis plus minus superficialibus, subglobosis glabris, atris 250-500 μ. diam., ostiolo brevi, obtuso, contextu membranaceo parenchymatico e cellulis distinctis parvis, circ. 5 μ. diam. composito; ascis late clavatis v. elongato-clavatis in stipitem longissimum 50-80 μ. long., angustum sæpe flexuosum attenuatis, 8-sporis, 120-145 × 15-20; sporidiis asci apicem versus imbricato-3-stichis, cylindraceis, utrinque rotundatis, rectis v. parum curvatis, quadrilocularibus 26-33 × 6-8, primum fuligineis demum fuscis, facile secedentibus, articulis mediis minoribus subquadratis 5-6 μ. long., terminalibus longioribus oblongis v. ellipticis.

Hab. in fimo Cariaci mexicani, Capreoli Capreæ, Camelopardalis giraffæ, Capræ dorcadis, Capræ sinaiticæ, Kew Britanniæ.

3. **Sporormia chrysospora** Griff. in Mem. Torr. Bot. Cl. 1901, p. 108. 2555
tab. XV, fig. 4-6. — Peritheciis sparsis, immersis vel in greges minutos erumpentes aggregatis demum subliberis, globulosis, 225-300 μ. diam. tenui-membranaceis; ostiolo brevi papillato, demum deciduo; ascis octosporis, cylindraceo-clavatis, apice rotundatis,

crasse stipitatis 65-95 × 10-12, paraphysibus filiformibus septatis, parcis; sporidiis distichis, anguste ellipsoideis, sursum paullo latioribus, utrinque rotundatis, 21-24 × 5-7, quadricellularibus, profunde constrictis non facile secedentibus, maturis læte flavis, strato hyalino sæpe indistincto obductis.

Hab. in stercore cuniculorum, Decorah Jowa, Amer. bor. (Holway). — Sporidiis læte flavis mox dignoscenda species.

4. **Sporormia tuberculata** Griff. Mem. Torr. Bot. Cl. 1091, p. 112, 2556
tab. XV, fig. 13-15. — Peritheciis sparsis diu immersis globulosis vel ovoideis 375-450 × 225-275, tenui-membranaceis, opace nigris, ostiolo elongato, sursum valde ampliato et grosse tuberculato, nigro; ascis octosporis clavatis, apice rotundatis, longiuscule stipitatis 100-130 × 11-13; paraphysibus filiformibus septulato-guttulatis ascos æquantibus; sporidiis distichis, cylindraceis, utrinque rotundatis, 4-cellularibus, profunde constrictis et facile secedentibus 32-33 × 5,5-7, strato gelatinoso angusto obvolutis.

Hab. in fimo caprino Ft. Lee, N. Y. et in fimo equino Tucson Ariz. Amer. bor. — Ostiolo omnino peculiari distincta species.

5. **Sporormia chætomioides** Griff. Mem. Torr. Bot. Club. 1901, 2557
p. 113, t. XVI, f 4-6. — Peritheciis sparsis, immersis, pilis longis, flexuosis septatis, fuscis præcipue ad ostiolum denso vestitis, 600-700 × 300-400, tenui-membranaceis e virescenti opace nigris, ostiolo longe cylindraceo recto vel curvo; ascis octosporis tereti-clavatis longe stipitatis, 130-180 × 13-18; paraphysibus copiosis filiformibus, septatis, ramosis, ascos multo superantibus; sporidiis 2-3-stichis, cylindraceis utrinque obtuse vel acutule rotundatis, 26-40 × 5-6, quadricellularibus, profunde constrictis, facile secedentibus, opace brunneis, strato mucoso angusto obductis.

Hab. in fimo bovino, Biloxi et Tucson Amer. bor.

6. **Sporormia kansensis** Griff. Mem. Torr. Bot. Cl. 1901, p. 113, t. XVI 2558
f. 7-9. — Peritheciis sparsis, immersis, erumpentibus et maturis partim denudatis, globulosis 600-900 × 300-450 substratui rhizinis copiosis firme adhærentibus, coriaceis, opace nigris, ostiolo longo, cylindrico apice truncato, tuberculato; ascis cylindricis, apice rotundatis medio et obtuse stipitatis 240-290 × 26-34; paraphysibus filiformibus septatis, subramosis, ascos superantibus; sporidiis 2-3-stichis, cylindricis, rectis curvulisve, utrinque rotundatis 4-cellularibus, profunde constrictis et secedentibus, 72-77 × 10-12, e flavido opace brunneis, stratu mucoso crasso obductis.

Hab. in fimo cuniculorum, Rooks Co. Kansas Amer. bor. (Bartholomew).

7. **Sporormia americana** Griff. in Mem. Torr. Bot. Club. 1901, p. 114. 2559
tab. XVII, fig. 11-13. — Peritheciis sparsis, immersis 225 × 175, globuloso-ovoideis tenui-membranaceis vel coriaceis, nigris, nitidulis; ostiolo papilliformi, nitido, brevi; ascis octosporis, cylindraceo-clavatis, apice rotundatis, breve stipitatis, 160-210 × 27-32; paraphysibus copiosis, filiformibus, ascos paullo superantibus; sporidiis 2-3-stichis subfusiformibus, 7-cellularibus, loculo tertio ab apice ceteris latiore, cellulis 5 intermediis latioribus quam longioribus, cellula apicali subovata et longiore quam latiore, 54-62 × 10-13, stratu gelatinoso crasso obvolutis.

Hab. in fimo cuniculorum, Gunnison Colorado, Amer. bor.

GIBBERIDEA Fuck. — Syll. II p. 132, XI p. 820.

1. **Gibberidea Ribis** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fung. 2560
p. 28. — Peritheciis in maculis nigrescentibus sparse congestis, erumpenti-superficialibus, globosis, nigris 500 μ. diam., rugosis, ostiolo brevi, conico donatis; ascis breve stipitatis, oblongis vel ellipticis 90-100 × 12-14; sporidiis fuligineis, ellipticis, 5-7-septatis, ad septa constrictis, 28-32 × 6-7.

Hab. in ligno decorticato Ribis, South Colorado, Amer. bor.

2. **Gibberidea Symphoricarpi** Tracy et Earle, Plantæ Bakerianæ, fasc. 2561
I, Fungi pag. 28. — Peritheciis in greges congestis, pustuliformibus, erumpentibus, setulis longis, strigosis, interdum septatis, fuscis, circ. 6 μ. diam. vestitis, carbonaceis, ostiolo minuto donatis, 750 μ. diam.; ascis cylindraceo-clavatis, breve stipitatis 80-100 × 14-16; paraphysibus numerosis, filiformibus; sporidiis oblique monostichis, ovoideis, fuligineis, 3-septatis, ad septa leviter constrictis, sæpe curvulis, 30-35 × 8-10.

Hab. in frustulis emortuis Symphoricarpi, Bob Creek, South Colorado, Amer. bor.

3. **Gibberidea obducens** Rick in Rehm Ascom. exs. n. 1561 et Ann. 2562
Mycol. 1904, pag. 517. — Peritheciis primo immersis dein erumpentibus gregatim coacervatis, totum caulem circumeuntibus, et crusta nigra insidentibus, 1-2 mm. diam., coriaceis, atris, prope basim hyphis laxis vestitis, superne nitidis, in collum breve angustatis; ascis pedicellatis v. sessilibus, clavatis, 80 × 6-7, octosporis; sporidiis subviridulis, acicularibus, curvulis, valde teneris, 3-

locularibus, 25-30 × 2; paraphysibus, laxis filiformibus, 2 μ. cr. fuscellis.

Hab. parasitice ad caules vivos **Menthæ** spec., Sao Leopoldo Brasiliæ.

RHYNCHOSPHÆRIA Sacc. — Syll. II p. 112, 228, XVI p. 524.

1. **Rhynchosphæria alpina** Karst. Fungi nov. Lœnnb. 1904, pag. 5 (Finska Vetensk. Soc.). — Caulicola; peritheciis sparsis, per epidermidem erumpentibus, hemisphærico-conoideis, subcarbonaceis, atris apice acute rostratis, minutis; ascis cylindraceis, apice basique paullo attenuatis, 8-sporis, 75-85 × 10-12; sporidiis distichis, fusoideis, 3-5-septatis, vix constrictis ex hyalino fuscidulis, 19-22 × 7-9; paraphysibus haud bene discretis. 2563

Hab. in caulibus **Atragenes alpinæ** emortuis siccis in regione Baicalensi, Listvinitschnoje (O. A. F. Lönnbohm).

2. **Rhynchosphæria lopadostoma** (Feltg.) Sacc. et D. Sacc. *Melanomma* (Rhync.) *lopadostomum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 295. — Peritheciis solitariis vel gregariis, interdum quoque basi connatis, globosis, basi ligno insculptis, cortice atrato tectis, 400-600 μ. diam., carbonaceo-coriaceis, nigris, rugulosis, ostiolo e basi conica cylindraceo, non perforato, apice excavato, subinde dilatato, 500 × 200; ascis cylindraceis, breve stipitatis, 100-136 × 10-12, copiose filiformi-paraphysatis, 4-8-sporis; sporidiis monostichis, elliptico-fusoideis, obtusis, rectis curvulisve, 3-septatis ad septa, præcipue medium, constrictis, 18-23 × 7-8, ex olivaceo brunneis, cellulis mediis paullo crassioribus. 2564

Hab. in ramis siccis **Ilicis Aquifolii**, Luxemburg.

PSEUDOVALSA Ces. et De Not. — Syll. II p. 135, IX p. 820, XI p. 330, XIV p. 577, XVI p. 527.

1. **Pseudovalsa ribesia** Sacc. et Scalia, Harrim Alaska Exped. Crypt. p. 29, pl. V, fig. 14. — Stromatibus corticolis tectis, dein erumpentibus, nigris, e peritheciis 4-6 connatis compositis, vix 1 mm. diam., ostiolis obtusulis breviter emergentibus; ascis crasse cylindraceis, brevissime abrupte stipitatis, apice late rotundatis, 110-130 × 24-26, filiformi-paraphysatis, octosporis; sporidiis distichis, oblongo-fusoideis, primo hyalinis, didymis, strato mucoso hyalino obductis, dein 3-septatis, medio parum constrictis, 38-41 × 16-20, fuscidulis. 2565

Hab. in ramis corticatis Ribis laxiflori, Siska Alaska (Trelease). — Sociæ adsunt *Rhynchophomæ, Godroniæ* et *Diaporthes* spp.

2. **Pseudovalsa canadensis** Ell. et Ev. in Journ. of Mycol. 1903, p. 224. — Peritheciis 0,5-0,8 mm. diam., in ligno immersis, sparsis vel 3-4 congestis, ostiolo papillato paullo emergente donatis; contextu subcoriaceo nigro; ascis 150-250 × 8-10, cylindraceis, summo rotundatis, paraphysibus numerosis, filiformibus, guttulatis hyalinis obvallatis; sporidiis cylindraceis, utrinque obtuse acuminatis, 7-10-septatis, luteo-brunneis, 23-30 × 7-8. 2566

Hab. in pariete interiore corticibus Cratægi, London, Canada, Amer. bor.

3. **Pseudovalsa minima** Ell. et Ev. in Journ. of Mycol. 1903, p. 224. — Stromatibus orbicularibus vel ellipticis 1-2 mm. latis, verticalibus, a matrice sursum nigrificata et circumcirca pallidiore formatis; peritheciis ab imo stromatis immersis, 2-6 in singulo stromate congestis, globosis vel ovatis 400 μ. diam.; ostiolis subconicis, paullo emergentibus; ascis cylindraceis 100-120 × 7; sporidiis monostichis, oblongo-ellipticis 3-septatis, parce constrictis, olivaceo-brunneis 12-15 × 3,5. 2567

Hab. in corticibus Aceris saccharini, London, Canada, Amer. bor.

THYRIDARIA Sacc. — Syll. II p. 140, IX p. 821, XI p. 331, XIV p. 578.

1. **Thyridaria Sebillei** Sacc. et Flag. in Atti Congr. bot. Palermo 1902, p. 53. — Peritheciis in soros minutos, inæquales (3-6) aggregatis v. interdum subsolitariis, stromate fuscescente parvo subcorticali connexis, globulosis, dein erumpentibus peridermioque laciniato cinctis, atris, rugulosis, 350 μ. diam., coriacellis; ostiolo obtuso brevissimo; ascis cylindraceo-clavatis, 140-160 × 14-16, apice rotundatis, copiose filiformi-paraphysatis, sensim tenuato-stipitatis, octosporis; sporidiis distichis, cylindraceo-oblongis, subrectis, utrinque paullulum tenuatis rotundatisque 28 × 7,5-9, fuligineis utrinque dilutioribus, 9-5-septatis, ad septa, præcipue medium, constrictis. 2568

Hab. in ramis corticatis emortuis Cratægi v. Pruni, Rigny sur Arroux Galliæ. — Species distincta, cl. ab. R. Sebille dicata.

2. **Thyridaria Sambuci** (Karst.) Sacc. — Syll. II, p. 141. — f. Fagi Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 122. — A typo differt peritheciis semper valsoideo-aggregatis, cortice nidu-

lantibus, non rubro-pulverulentis, minutius papillatis; ascis, sporidiis et paraphysibus vero iisdem.

Hab. in ramis siccis corticatis Fagi silvaticæ, Luxemburg.

KALMUSIA Niessl. — Syll. II p. 142, IX p. 822, XI p. 331, XIV p. 578, XVI p. 1137.

1. **Kalmusia Sarothamni** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 109 et I, 1899, p. 177, n. 534 (sub *Kalmusia Ebuli* in Sarothamno). — Peritheciis globoso-depressis plerumque gregariis, ligno atrato immersis v. semiimmersis, ostiolis erumpentibus, tereti conoideis; ascis clavatis, longe stipitatis, 65 × 8-10; paraphysibus filiformibus, longe superantibus obvallatis, 8-sporis; sporidiis distichis v. inordinatis, tereti-fusoideis, utrinque rotundatis, 3-septato-constrictis, rectis curvulisve, brunneis, 13-15 × 5-6. 2570

Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.

2. **Kalmusia argentinensis** Speg. Myc. argentin. ser. II, 1902, p. 72. — Maculis fusco-atris, superficialibus, latissime effusis, sæpius ellipsoideis, indeterminatis; peritheciis ligno omnino immersis e latere compressis, subcoriacellis, nigris mediocribus, 200-350 μ. long. et alt. 100-150 μ. latis, ostiolo minutissimo donatis; contextu indistincto, nucleo fusco repletis; ascis linearibus, apice obtuse rotundatis, basi brevissime cuneato-pedicellatis, 160-180 × 12-16; paraphysibus filiformibus sat numerosis paullo longioribus obvallatis; sporidiis elliptico-subcylindraceis, recte vel oblique monostichis, utrinque obtuse rotundatis, 20-22 × 10-12, levibus, fuligineis, 3-septatis, ad septa constrictulis, loculis mediis obscurioribus sæpeque 1-guttulatis. 2571

Hab. ad palos decorticatos putrescentes Eucalypti globuli, La Plata in Argentina.

MELOGRAMMA Fr. emend. Tul. — Syll. II p. 144, IX p. 824, XI p. 331, XIV p. 579, XVI p. 527.

1. **Melogramma patens** Morgan in Journ. of Mycol. 1904, p. 49. — Stromatibus gregariis, in cortice immersis dein erumpentibus, 2-3 mm. d., 50-100 perithecia includentibus, depresso-pulvinatis, cinereo-nigris, superne mammillatis, pro peritheciis numerosissimis parvulis; peritheciis ovoideis, papillatis; ascis cylindraceis, breve pedicellatis, octosporis 120-130 × 7-9, paraphysatis; sporidiis fusiformibus, subcurvulis, 3-septatis, lutee-brunneis, 18-22 × 6-7. 2572

Hab. in ramis emortuis Carpini americanæ, Preston, Ohio Amer. Bor.

Sect. 8. Hyalodictyæ.

PLEOSPHÆRULINA Pass. — Syll. XI p. 350, XIV p. 611, XVI p. 554.

1. **Pleosphærulina Cassiæ** P. Henn. Fungi costaricenses I, in Hedw. 2[illegible] 1902, p. 102. — Maculis rotundatis, fuscidulis, dein exaridis pallescentibus, zona brunnea circumdatis, 2-3 mm. diam.; peritheciis epiphyllis sparsis vel subgregariis, innatis, membranaceo-cellulosis, subglobosis v. sublenticularibus, fuscis ca. 150 μ. diam.; ascis ovoideis v. ellipsoideis, obtuse rotundatis, octosporis, aparaphysatis 50-60 × 25-33; sporidiis conglobatis, oblonge fusoideis, utrinque acutiusculis v. obtusis, 4-septatis, interrupte muriformibus, 20-28 × 7-8, hyalinis.

Hab. in foliis Cassiæ reticulatæ, Rio Zent Amer. bor.

CATHARINIA Sacc. — Syll. II p. 275, IX p. 892, XI p. 350, XIV p. 641, XVI p. 554.

1. **Catharinia Cascarillæ** Rehm, Hedw. XLIV (1905). — Peritheciis [illegible] sparsis, primitus epidermide tectis, dein plus minusve emersis, globosis, glabris, ostiolo minuto papillatis, atris, circ. 300 μ. diam. membranaceis; ascis clavatis, crasse tunicatis 85-100 × 25-27, octosporis; sporidiis ellipsoideis, transverse demum 7, longitudinaliter plerumque 3-septatis, hyalinis, nitentibus, strato mucoso 3 μ. crasso obductis, 20-25 × 10-12, distichis; paraphysibus ramosis, septatis, 1 μ. crassis.

Hab. ad corticem venalem Cascarillæ officinalis ex America merid. (Dr. Rehm). — Gonidia omnino nulla

2. **Catharinia cylindrospora** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, [illegible] 1903, p. 199. — Peritheciis immersis, globosis, 200-250 μ. latis, ostiolo acute conoideo, longiusculo, tantum emergente; ascis cylindraceis, stipitatis vel sessilibus, 100-136 × 8-10, octosporis; sporidiis monostichis vel subdistichis, cylindraceis, utrinque subattenuatis, vulgo rectis, 4-5-septatis leniterque constrictis, septulis nonnullis longitrorsum divisis, hyalinis vel dilutissime flavidis, 16-19 × 5,5-7.

Hab. in caulibus siccis Symphyti caucasici, Luxemburg.

3. **Catharinia Hircini** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, [illegible]

p. 199. — Peritheciis gregariis, rarius subsparsis, innato-erumpentibus vel fere liberis, globoso-conoideis, rugulosis, 300-500 μ. diam, ostiolo verruciformi vel breve cylindraceo; ascis tereti-clavatis breve stipitatis, 77-88 × 13,5, sexsporis, filiformi-paraphysatis; sporidiis monostichis, oblongo-ovoideis, medio constricto-1-septatis, parte superiore majore 1-2-septata non constricta, septo longitudinali divisis, guttulatis vel eguttulatis, hyalinis, 15-18 × 8-9.

Hab. in caulibus Hyperici hircini, Luxemburg.

PELTOSPHÆRIA Berl. — Syll. IX p. 898.

1. **Peltosphæria Orni** Rehm in Œst. bot. Zeitschr. 1904, p. 88. — 2577
Peritheciis sparsis, simplicibus, in cortice nidulantibus, clypeo stromatico atro orbiculari 1-1,2 mm. diam. adhærente tectis, sensim hemisphærice prominentibus, globosis, vix papillulatis, ostiolo perspicuo pertusis, atris, subcarbonaceis, 0,6-0,7 mm. diam.; ascis cylindraceis, apice rotundatis incrassatisque 120-130 × 15-20, quadrisporis; sporidiis late fusoideis, transverse plerumque 7, longitudinaliter 2-3-septatis, hyalino-nitentibus, strato mucoso tenui 2 μ. cr. obductis, 30-35 × 18, monostichis; paraphysibus filiformibus 2 μ. crassis.

Hab. in ramo corticato Fraxini Orni prope Podgora Carniolæ (Steiner).

TEICHOSPORELLA Sacc. — Syll. II p. 303, IX p. 908 (ut subg.) et XI p. 351.

1. **Teichosporella denudata** (Feltg.) Sacc. et D. Sacc. *Strickeria denudata* 2578
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, p. 196. — Peritheciis gregariis vel nonnullis aggregatis basi insculptis, globosis, atro-brunneis, rugosulis 300-500 μ. diam., ostiolo breve cylindraceo, atro-nitido; ascis cylindricis, breve stipitatis, octosporis filiformi-paraphysatis, 110-162 × 7-8; sporidiis monostichis, elliptico-oblongis, leviter clavatis, plerumque 5-7-septatis, constrictis, cellula 1- vel 2 longitudinaliter partitis, pluri-guttulatis hyalinis vel dilutissime brunneolis, rectis curvulisve 16-24 × 6-8,5.

Hab. in ramis decorticatis Piri japonicæ, Luxemburg.

2. **Teichosporella Edwiniæ** (Clem.) Sacc. et D. Sacc. *Tichosporium Edwi-* 2579
niæ Clements in Bull. of the Torr. Bot. Cl. 1903, p. 83. — Peritheciis copiosis, superficialibus, ad basim innatis, submembranaceis, depresso-globosis, deinde cupulate collabentibus, glabris, vix ostiolatis vel vere astomis, rima apicali dehiscentibus, nigris, 175-

300 μ. d.; ascis octosporis, late oblongis, membrana crassa, jodo vix vel non cærulescentibus, 60 × 12-14; sporidiis oblique monostichis, oblongo-ovatis, hyalinis 4-6-septatis, sæpius 5-septatis, loculis terminalibus exceptis, longitrorsum 1-divisis, ad septa distincte constrictis, 20-22 × 8-10.

Hab. ad ramos decorticatos Edwiniæ americanæ, Minnehaha Amer bor.

Subg. Tephrosticta Sacc. et Syd.
Perithecia subiculo insidentia, collabascentia.

3. **Teichosporella Negeriana** Sacc. et Syd. Ann. Mycol. 1904, p. 163. — 2580
Subiculo tenuissime pulvereo, epiphyllo, maculiformi, cinerescente; peritheciis laxe sparsis, superficialibus, globoso-hemisphæricis, mox collapso-scutellatis, nigris, glabris, 160-200 μ. diam., apice poro rotundo, non papillato, 20 μ. diam. pertusis; contextu tenui, parenchymatico, fuligineo, cellulis 8 μ. diam.; ascis clavatis, breviter stipitatis, apice rotundatis, 65-75 × 11-13, aparaphysatis, octosporis; sporidiis distichis, ellipsoideo-oblongis, utrinque obtusulis vel acutiusculis, 12-14 × 5, triseptatis septoque uno vel altero longitudinali muriformibus, ex hyalino dilutissime chlorinis, farctis.

Hab. in foliis Litseæ causticæ, Concepcion in Chile (F. W. Neger) socia *Meliolæ* specie indeterminata.

BERLESIELLA Sacc. — Syll. IX p. 914.

1. **Berlesiella hispida** Morg. Journ. Myc. 1903, p. 217. — Stromatibus (*Botryodiplodiæ*) corticalibus, erumpentibus, elongatis, nigris; peritheciis numerosis, compactis, prominentibus, rugulosis, nigris; sporulis obovoideo-oblongis, initio hyalinis continuis, dein brunneis 1-septatis 25-30 × 14-17; stromatibus (*Berlesiellæ*) corticalibus, erumpentibus, nigris, plus minusve effusis; peritheciis, in stromate immersis, latis, nigris, subglobosis, pertusis, setulis filiformibus, septatis, nigris vestitis; ascis cylindraceis, breve pedicellatis, 150 × 18-22; paraphysibus filiformibus; sporidiis elliptico-oblongis, diu hyalinis, dein luteo-brunneis, transverse 4-7-septatis, longitudinaliter 1-septatis, ad septum medianum sæpe constrictis, 25-35 × 10-14.

Hab. in ligno corticato Æsculi glabræ, Preston, Ohio, Amer. bor.

Sect. 9. Phæodictyæ.

LEPTOSPHÆRULINA Mc Alpinæ Fungus diseases Stone-fr. trees, Melbourne 1902, p. 103 (Etym. *leptos* angustus et *Sphærulina*). — Est *Pleosphærulina* phæodictya, nempe sporidiis septato-muriformibus, *brunneis* prædita.

I. *Eu-Leptosphærulina.* Species in plantis vascularibus.

1. **Leptosphærulina australis** Mc Alp. l. c. — Peritheciis gregariis subepidermicis dein erumpentibus, globosis, poro pertusis, membranaceis, contextu parenchymatico, pallide brunneis circ. 150 μ. d.; ascis breve clavatis, octosporis 75-80 × 28-30; sporidiis distichis; v. tristichis, initio hyalinis, dein brunneis elongato-oblongis, utrinque rotundatis, 5-septatis, ad septa non constrictis, septulo longitudinali divisis, 30-32 × 11. 2582

Hab. in foliis Pruni Armeniacæ, Queensland Australiæ.

II. *Heterophracta* (Nyl.). Species lichenicolæ, parasiticæ.

2. **Leptosphærulina heterophracta** (Nyl.) Sacc. et D. Sacc. *Endococcus heterophractus* Nyl. Flora 1867, p. 373. — Peritheciis prominulis globosis, nigris 100 μ. diam.; ascis 8-sporis, aparaphysatis; sporidiis ellipsoideis 4-cellularibus, 10-14 × 6-7, nigrescentibus septulisque uno alterove longitudinali divisis. 2583

Hab. in thallo Lopadii pezizoidei, Evois Fenniæ.

3. **Leptosphærulina nigritella** (Nyl.) Sacc. et D. Sacc. *Verrucaria? nigritella* Nyl., Leight. Brit. Lich. Fl. p. 497. — Peritheciis nigris; ascis octosporis, aparaphysatis; sporidiis oblongis pluriseptato-muriformibus, 21-36 × 9-14, brunneis. 2584

Hab. in thallo Catopyrenii cinerei in Britannia.

4. **Leptosphærulina coccispora** (Norm.) Sacc. et D. Sacc. *Endococus coccisporus* Norm. Spec. loc. nat. Norv. 1868, p. 375. — Peritheciis crebris vix parte super. emersis 110-200 μ. d., atris, globosis, ostiolo obtuso, pertuso, 20-24 μ. diam.; ascis octosporis; sporidiis brunneis late ovoideis, quadrilocularibus, septisque uno v. paucis longitudinalibus, submuralibus, 60-80 × 40-50, loculis extimis brevioribus, vel brevissimis. 2585

Hab. in thallo Pyrenopsidis hæmaleæ var. terricolæ in regione arctica Norvegiæ. — Jodi ope nucleus e flavo rubescit.

PLEOSPORA Rab. — Syll. II p. 241, IX p. 873, XI p. 342, XIV p. 594, XVI p. 544.

1. **Pleospora lepidiicola** Earle, Plantæ Bakerianæ fasc. II, Fungi p. 22. 2586
— Peritheciis sparsis, tectis, nigris, ostiolo erumpentibus, 200-300 μ. diam.; ascis subcylindraceis, breve stipitatis, 100–120 × 20; paraphysibus filiformibus, numerosis; sporidiis subdistichis, ovatis, utrinque late rotundatis, brunneis, 7-septatis, ad septum medianum valde constrictis, verticaliter 3-vel-pluriseptatis, 20-28 × 10-11.

Hab. in caulibus emortuis Lepidii apetali, Hermosa, South Colorado Amer. bor.

2. **Pleospora Armeniacæ** Mc Alp. Fung. diseas Stone-fr. trees, Melb. 2587
1902, p. 113, f. 176–178. — Peritheciis sparsis, initio subepidermicis dein erumpentibus, coriaceis, firmis, interdum in ostiolum elongatum desinentibus, nigris, circ. 500 μ. diam.; ascis cylindraceis, stipitatis, apice rotundatis, octosporis, 100-108 × 9-10; paraphysibus hyalinis granulosis 1,5-2 μ. crassis; sporidiis monostichis, olivaceis, oblongis v. oblongo-ellipticis transverse 3-septatis, ad septum medium leviter constrictis, longitudinaliter 2-septatis, 17–19 × 6,5-7,5.

Hab. in ramulis emortuis Pruni Armeniacæ, Armadale, Victoria Australiæ.

3. **Pleospora kansensis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, 2588
p. 17. — Peritheciis sparsis, subcutaneis, ovato-globosis 250–360 μ diam., ostiolo conico v. brevi-cylindrico præditis; ascis clavatis, superne rotundatis, inferne gradatim constrictis; paraphysibus 3 μ. cr., septatis, hyalinis; sporidiis distichis, oblongo-ovatis, sursum rotundatis 5-6-septatis, muriformibus, paullo constrictis, lucentibus, chlorino-luteis, 20-22 × 7-9.

Hab. in caulibus emortuis Meliloti albi, Rooks Co. Kansas, in Amer. bor. — Ab affinibus *Pl. Meliloti* Rab. et *Pl. dura* Niessl facile dignoscitur.

4. **Pleospora ribesia** Feltg. Vorst. Pilz. Lux. Nachtr. III, 1903, p. 197. 2589
— Peritheciis subgregariis, subcutaneis, globoso-depressis 100–200 μ. diam., basi hyphis septatis ramosisque brunneis præditis, ostiolo papillato-erumpente; ascis cylindraceis, breve stipitatis filiformi paraphysatis 180 × 13-15, octosporis; sporidiis monostichis, ellipsoideis, 5 septato-muriformibus constrictis, flavo-brunneis, 18-20 × 9-10.

Hab. in ramis siccis corticatis Ribis alpini, Luxemburg.

5. **Pleospora Vitis** Catt. — Syll. II, p. 257. — f. **Ribis alpini** Feltg. 2590
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 197. — A typo differt perithecis majoribus et depressis, 300-400 μ. diam.; ascis brevioribus, 100-108 × 27; sporidiis 7-septato-muriformibus, 31-33 × 12-14.

Hab. in ramis siccis Ribis alpini, Luxemburg.

6. **Pleospora denudata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2591
1903, p. 196. — Perithecis gregariis, ligni superficie basi insculptis et vertice emergentibus, globoso-ovoideis, siccis collabentibus, 150-200 μ. diam. atro-brunneis, ostiolo conico-papillato; ascis tereticlavatis, longiuscule stipitatis, 108-123 × 12-16, filiformi-paraphysatis, octosporis; sporidiis 1-2-stichis, elliptico-fusoideis v. obovatis demum 4-cellularibus muriformibusque, brunneis, ad septa constrictis 13-19 × 8-10.

Hab. in ligno nudo vel subcorticato Tiliæ, Luxemburg. — *Pleosp. Saccardiana* et *Pl. Juglandis* subaffinis.

7. **Pleospora Tiliæ** Feltg. Pilz. Luxemb Nachtr. III, 1902, p. 193. — 2592
Perithecis sparsis, basi insculptis, globosis 150 μ. latis, minute conico-papillatis, nigris; ascis elliptico-clavatis, breve crasse stipitatis 33-41 μ. cr.; sporidiis inordinate distichis, elliptico-cylindraceis 5-7-septato-muriformibus, constrictis, 22-33 × 10-16, flavo-brunneis.

Hab. in foliis putridis Tiliæ, Luxemburg. — *Pleosporæ acaciicolæ* affinis.

8. **Pleospora Theæ** Speschnew, Tif. Bot. 1904, p. 77, t. III, f. 8-13. 2593
— St. conid. *Macrosporium commune* Rab v. *theicolum* Speschnew l. c. Conidiophoris radiantibus; conidiis oblongo-piriformibus, sub-4-septato-muriformibus 24-28 × 10. — St. ascoph. Perithecis sporidiisque ut in Pl. herbarum var. Citrorum (sporidiis [in icone 13] ovato-oblongis 9-11-septato-muriformibus, brunneis).

Hab. in foliis vivis Theæ in Caucaso.

9. **Pleospora herbarum** (Pers. Rabh. — Syll. II, pag 247. — f. **Ca-** 2594
melliæ Speg. in Ann. Soc. Cient. Argent. 1899, p. 277 — Maculis amphigenis, arescentibus, suborbicularibus, 5-10 mm. diam., determinatis, linea callosa turgescente infuscata limitatis, supra cinereo-albis, subtus albo-rubescentibus; perithecis epiphyllis, sparsis, minutis, epidermide tectis, globosis, atris, opacis; ascis clavatis 100-175 × 25-30, octosporis aparaphysatis; sporidiis obovatis, 25-30 × 12-15, utrinque obtusis, horizontaliter 5-7-septatis, ad septa

leniter constrictis, totis septo verticali interrupto unico divisis, fusco-flavis.

Hab. in foliis vivis Camelliæ cujusdam in hortis cultæ, La Plata Argentinæ. — Var. **Rutæ** P. Henn. Hedw. 1903, p. 218. — Peritheciis 300-350; ascis superne truncato-rotundatis 80-140 × 18-30, tetrasporis vel octosporis; sporidiis 3-7-septatis, muriformibus, ellipsoideis vel ovoideis, 20-35 × 10-20. — In caulibus emortuis Rutæ graveolentis, in horto botanico Berolini. — Var. **spinicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 189. — Peritheciis 300-400 μ. diam. ascis tereti-clavatis 180-220 × 25-35; sporidiis 1-2-stichis, 7-septato-muriformibus, flavis 33-40 × 13-16. — In spinis bractearum Onopordi Acanthii, Luxemburg.

10. **Pleospora Œnotheræ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 191. — Peritheciis sparsis, epidermide tectis, depressis, atro-brunneis, 400-500 × 200-300, firmulis, obtuse papillatis; ascis clavatis breve crasse stipitatis 95 × 40, subinde 200 × 27, filiformi-paraphysatis, 6-8-sporis; sporidiis inordinate 4-3-stichis, oblongo-fusoideis, septis primariis 7 et secundariis 5-7 transverse partitis muriformibusque, constrictis, flavo-brunneis, 45-55 × 13-15. 2595

Hab. in caulibus siccis Œnotheræ biennis, Luxemburg. — *Pleoporæ Feltgeni* affinis.

11. **Pleospora evonymella** Maublanc in Bull. Soc. Myc. de France 1903, fasc. III, p. 292, tab. XV, fig. 2. — Maculis amphigenis, albidis vel cinereis, late brunneo cinctis; peritheciis epiphyllis, globosis vel leniter depressis, atris, ostiolo minuto, perforato donatis, epidermide tectis, 250 μ. latis; ascis clavatis, sæpe curvis, basi in stipitem brevissimum abeuntibus, octosporis, 140-160 × 20-25; sporidiis subdistichis, oblongis, parte superiore leniter crassiore 7-septatis, muralibus, ad septa vix constrictis, 33-40 × 14-16; paraphysibus nullis. 2596

Hab. in foliis Evonymi japonici, Pornic Galliæ.

12. **Pleospora collapsa** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 198. — Peritheciis gregariis subcutaneo-erumpentibus, globoso-depressis, siccis subscutellatis, nigris, minute papillatis 300-400 μ. diam.; ascis clavatis, breve stipitatis, octosporis, 130-136 × 27-33; sporidiis inordinatis, submonostichis, oblongo-ellipsoideis, 7-septato-muriformibus, constrictis, sursum latioribus, 32-38 × 13-16. 2597

Hab. in ramis corticatis Papilionaceæ cujusdam frutescentis, Luxemburg.

13. **Pleospora Clematidis** Fuck. — Syll. II, p. 265. — f. **Sarothamni** 2598

Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 149. — Peritheciis gregariis, subliberis, nigris, papillatis; ascis cylindraceis 104 × 9-10; sporidiis monostichis, fusoideis, utrinque obtusulis, plerumque 5-septato-muriformibus, flavo-brunneis, 18-21 × 6-8.

Hab. in ramis siccis Sarothamni scoparii, Luxemburg.

14. **Pleospora atro-maculans** Rehm Ann. Mycol. 1904, p. 177. — 2599
Peritheciis gregariis, ramulum ambientibus, sub peridermio demum hemisphærice elevato et atro-maculato nidulantibus, eoque perfisso apice prominentibus, haud ostiolatis, poro minutissimo pertusis, globulosis, glabris, crasse membranaceo-contextis 0,3-0,5 mm. d.; ascis subcylindraceis 80-100 × 9-10, octosporis; paraphysibus filiformibus; sporidiis ellipsoideis, utrinque obtusis, primitus transverse 3, sæpe 5-septatis, demum cellulis mediis 1 vel 2 semel longitudinaliter septatis, ad medium interdum subconstrictis, olivaceis, 12-15 × 5-6, plerumque oblique monostichis.

Hab. ad ramulos emertuos Corni, Blue Mountains, N. Carolina Amer. bor. (Atkinson).

15. **Pleospora Briardiana** Sacc. — Syll. IX, p. 882. — f. **Achilleæ** 2600
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 190. — A typo differt peritheciis in sicco vix collabascentibus; ascis brevioribus et crassioribus 80-108 × 16-19; sporidiis inæquilateris vulgo 6-septato-muriformibus, 23-26 × 8, flavis.

Hab. in caulibus siccis Achilleæ Millefolii, Luxemburg.

16. **Pleospora megalotheca** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2601
Fungi p. 35. — Peritheciis sparsis, erumpentibus, glabris, depresso-globosis, ostiolo conico breve donatis; ascis 15-20, oblongis, longe stipitatis, crasse tunicatis, octosporis 200-250 × 40-45; sporidiis oblique monostichis vel distichis, ovatis, luteo-brunneis, dein opacis 11-13-septatis et 2-3 longitudinaliter septatis, 40-45 × 16-20.

Hab. in caulibus Achilleæ Millefolii, Bob Creek, Colorado Amer.

17. **Pleospora Meliloti** Rabh. — Syll. II, pag. 246. — f. **Achilleæ** 2602
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 141. — Peritheciis gregariis, erumpentibus, globoso-depressis, dein collabentibus, minute papillatis; ascis cylindraceis sessilibus, 6-sporis, 160-170 × 17-20; sporidiis submonostichis, 5-6-septato-muriformibus, 30-32 × 14, flavo-brunneis.

Hab. in caulibus siccis Achilleæ Millefolii, Luxemburg.

18. **Pleospora Balsamorrhizæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 2603
Fungi p. 34. — Peritheciis sparsis, longitudinaliter suberumpenti-

bus, glabris, superne depressis, 300-400 μ. diam. ostiolo breve conico donatis; ascis 4-8, late clavatis vel obovatis 200-250 × 70-80 octosporis; sporidiis sine ordine dispositis 7-septatis, ad septa constrictis, ad septum medium constrictioribus, magnitudine variis 60 × 28 v. 38 × 16, medie 45 × 22.

Hab. in caulibus Balsamorrhizæ deltoideæ, Mancos Colorado, Amer.

19. **Pleospora Compositarum** Earle, Plantæ Bakerianæ fasc. II, Fungi p. 21. — Periiheciis sparsis, tectis, planiusculis, nigris 200 μ. diam., membranaceis; ascis ovoideis v. obovatis, breve stipitatis 80-90 × 20; paraphysibus numerosis asco longioribus, guttulatis, superne inflatis, vage ramosulis; sporidiis distichis, brunneis, utrinque obtusis, ovoideis v. subovatis 5-(raro 6-7)-septatis, septo mediano constrictis, sæpe curvulis, longitudinaliter medio divisis, 20-25 × 8-10. 2604

Hab. in caulibus emortuis Encephali spec., Hermosa South Colorado, Amer. bor.

20. **Pleospora Rhanterii** P. Henn. F. Oranen. Hochreut. p. 243 (Ann. Conserv. Jard. bot. Genève, 1903-1904). — Peritheciis caulicolis sparsis v. subgregariis, innatis, epidermidem suberumpentibus, hemisphæricis ca. 120-160 μ. diam., atro-membranaceis, poro pertusis; ascis clavatis apice tunicatis, rotundatis, ca. 75-100 × 20-30, basi breve stipitatis curvulis, octosporis, obsolete paraphysatis; sporidiis subdistichis, oblonge ellipsoideis, utrinque rotundatis, primo melleis, dein brunneis, deinde atro-castaneis, 3-5-septatis, cuneiformibus, 20-30 × 13-18. 2605

Hab. in ramulis siccis Rhanterii suaveolentis, Oran Afr. sept. (Hochreutiner).

21. **Pleospora Senecionis** Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 22. — Peritheciis sparsis, tectis, dein erumpentibus, nigris, 200 μ. diam. v. ultra, planiusculis; ostiolo inconspicuo; ascis ovoideis, fere sessilibus, 80 × 18; paraphysibus paucis, filiformibus, tenuibus, continuis; sporidiis subdistichis, ovatis, utrinque rotundatis, brunneis, 5-7-septatis, 20-30 × 12. 2606

Hab. in caulibus emortuis Senecionis, Hermosa, South Colorado, Amer. bor.

22. **Pleospora discoidea** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 198. — Peritheciis sparsis epidermide tenui tectis, nigricantibus globoso-discoideis, minute conico-papillatis, subcarbonaceis 200-300 × 100-150; ascis cylindraceis breve crasse stipitatis, octo- 2607

sporis 115-127 × 25-30, paraphysatis; sporidiis distichis, obovato-oblongis, vulgo 7-septato-muriformibus, constrictis, 30-38 × 13-16.

Hab. in ramis corticatis Sambuci racemosæ, Luxemburg.

23. **Pleospora Clematidis** Fuck. — Syll. II, p. 255. — f. **Sambuci** 2308
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903. p. 195. — A typo recedit, præter matricem, ascis magnitudine valde ludibundis 95-230 × 8-14, et sporidiis ellipsoideo-fusiformibus, 21-28 × 7-8, 4-5-septato, muriformibus, brunneo-flavis.

Hab. in ramis corticatis Sambuci racemosæ, Luxemburg. — f. **Viburni** Feltg. l. c. — Differt peritheciis multo minoribus 100-200 μ. diam., globosis, basi non applanatis, non rugosis; ascis latioribus, 100-175 × 15-16; sporidiis crassioribus 20-23 × 8-11,3-5-septato-muriformibus constrictisque, flavis. — In ramis corticatis Viburni Opuli, Luxemburg. — Cfr. supra n. 13.

24. **Pleospora Falconeri** P. Henn. Hedw. 1903, p. 218. — Peritheciis 2609
foliicolis, in maculis fuscis v. griseis sparsis, subhemisphæricis, atro-olivaceis ca. 300 μ. diam.; ascis crasse clavatis, apice obtusis tunicatis, octosporis, 80-110 × 20-30, paraphysibus pluriseptatis 3-4,5 μ. crassis, hyalinis; sporidiis distichis, oblonge ellipsoideis, utrinque obtusis, melleis, dein brunneis, 9-10-septatis, 1-2 longitudinaliter septatis, constrictis, 25-32 × 14-16.

Hab. in foliis emortuis Rhododendri Falconeri, in horto botanico Berolinensi.

25. **Pleospora massarioides** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2610
p. 192. — Peritheciis gregariis, epidermide tectis, membranaceo-coriaceis, nigris, globoso-depressis, 250-300 μ. diam., papilla verruciformi-erumpentibus; ascis elongato-clavatis, breve stipitatis 175-200 × 27-33, paraphysatis octosporis; sporidiis inordinate distichis, oblongo-ellipsoideis subclavatisve 7-septato-muriformibus constrictis, 40-47 × 13-16, melleo-brunneis, strato mucoso hyalino obductis.

Hab. in caulibus siccis Echii vulgaris, Luxemburg.

26. **Pleospora Acantholimonis** P. Henn. in Notizblatt des Kgl. bot. 2611
Gard. Berl. 1900, n. 22, p. 37. — Peritheciis foliicolis, subgregariis, epidermide primo tectis, dein erumpentibus, lenticulari-hemisphæricis, atris, ca. 150-350 μ. diam.; ascis clavatis, vertice obtusis, basi attenuatis, sæpe stipitatis curvulis, 150-200 × 24-32, octosporis; sporidiis subdistichis v. oblique monostichis, ellipsoideis v. ovoideis, utrinque obtusis 3-dein 7-septatis, muriformibus, constrictis, melleis dein brunneis, 23-34 × 16-23.

Hab. in foliis Acantholimonis glaucescentis et A. venusti in horto botanico Berolinensi Germaniæ.

27. **Pleospora Ephedræ** Speg. Myc. argent. ser. II, 1902, p. 72. — 2612
Peritheciis laxe aggregatis, primo epidermide tectis, dein denudatis, superficialibus, conoideo-hemisphæricis, eximie papillato-ostiolatis, carbonaceis, glaberrimis, 150–250 μ. diam., contextu indistincto, atro; ascis cylindraceis v. clavulatis dense paraphysatis, 90–160 × 15–24; paraphysibus filiformibus, longioribus, simplicibus; sporidiis rectis, monostichis v. subdistichis, ex elliptico subovatis, 24–25 × 10–12, horizontaliter 7-septatis, septo altero longitudinali divisis, olivaceis, in prima ætate tunica mucosa tenui vestitis, mox nudis, levibus.

Hab. ad ramulos dejectos putrescentes Ephedræ ochreatæ, La Plata in Argentina. — Species *P. Gilletianæ* Sacc. certe affinis, sed rite distincta.

28. **Pleospora Henningsiana** Ruhland, Jahn et Paul (Verh. d. Bot. 2613
Ver. d. Prov. Brandenb. XXXXIII, 1901, p. 105). — Peritheciis in cortice matricis sub peridermio innatis, depresso-globosis, coriaceo-membranaceis, sparsis, atris, ostiolo 50-60 μ. lato, paullum prominente instructis, ceterum peridermio tectis, c. 350 μ. latis, 260 μ. altis; ascis subcylindraceo-clavatis, 160–180 × 20-28, apice rotundatis, paraphysibus filiformi-tenuibus obvallatis; sporidiis plerumque 7–9-septatis, muriformibus, oblongo-fusiformibus, ad septa leviter constrictis, primum flavis, dein fusco-fuligineis, 45–50 × 10–15.

Hab. ad ramulos emortuos Coryli Avellanæ (?) ad Wiederschönhausen pr. Berlin Germaniæ.

29. **Pleospora juglandina** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2614
1903, p. 193. — Peritheciis sparsis, basi insculptis epidermideque pustulata tectis, demum subliberis, globosis, minute papillatis, nigris, 200-250 μ. diam.; ascis tereti-oblongis, octosporis, parce paraphysatis, 142–158 × 23-29; sporidiis 1-2-stichis, obovato-oblongis 5-rarius 6-septato-muriformibus, constrictis, e melleo brunneis, 30-37 × 14-17.

Hab. in pag. inf. foliorum Juglandis regiæ, Luxemburg.

30. **Pleospora Salicis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2615
1903, p. 199. — Peritheciis sparsis, innato-erumpentibus, globoso depressis, obtuse papillatis, nigris 150-200 μ. diam.; ascis . . . . non visis; sporidiis oblongo-ellipsoideis, obtusis, rectis, 7-septato-muriformibus, constrictis, flavo-brunneis 12-15 × 4–5,5.

Hab. in ramis corticatis Salicis, Luxemburg.

31. **Pleospora sepulta** Clements in Bull. of the Torr. Bot. Cl. 1903, p. 85. — Peritheciis subcopiosis, subepidermidicis, rotundato-elevatis v. hysterioideis, globosis, vix ostiolatis, carbonaceis, glabris, 400-500 μ. diam.; ascis 6-8-sporis, clavato-cylindraceis, jodo non tinctis, paraphysibus linearibus, simplicibus, valde torulosis, apice 4 μ. lat.; sporidiis oblongo-fusiformibus, oblique monostichis, utrinque attenuato-acutis, 8-11-plerumque 9-10-septatis, septo verticali uno, nonnumquam duobus, ad medium constrictis, ætate secedentibus, flavis dein brunneis, 30-45 × 10-14. 2616

Hab. ad ramos vetustos decorticatosque, Minnehaha, Americæ borealis.

32. **Pleospora Edwiniæ** Clements in Bull. of the Torr. Bot. Cl. 1903, p. 85. — Peritheciis sparsis, tectis, deinde cortice dejecto superficialibus, depresso-globosis, ostiolatis, vix vel non papillatis, magnis 500-600 μ.; ascis 4-6-sporis, clavatis, jodo non vel indistincte cærulescentibus, 100-120 × 15; paraphysibus numerosis, linearibus, ascos valde superantibus; sporidiis recte monostichis, late ellipticis 4-5-septatis, uno septo verticali in quoque loculo, ultimis sæpe exceptis, ad septa leviter constrictis, ad secundum semper valde constrictis, fusco-brunneis, 20-25 × 12-14. 2617

Hab. in ramis siccis Edwiniæ americanæ, Sugar Loaf, Amer. bor.

33. **Pleospora Kentiæ** Maublanc in Bull. Soc. Myc. de France 1903, fasc. III, p. 291, tab. XIV, fig. 2. — Maculis elongatis, albidis, margine brunneo cinctis; peritheciis punctiformibus, nigris, globosis, immersis, sursum in papillam cylindricam, longiusculam, 70 μ., desinentibus, 150 μ. diam.; ascis cylindricis 80-85 × 12; sporidiis monostichis, oblongis, inæquilateralibus, utrinque attenuatis, 3-septatis, medio constrictis, loculo uno vel duobus intermediis longitudinaliter et interdum transverse divisis, ochraceis, 16-18 × 8-9; paraphysibus diffluentibus. 2618

Hab. in foliis vivis Kentiæ cujusdam in Algeria.

34. **Pleospora Aphyllanthis** P. Henn. Hedw. 1902, p. 135. — Peritheciis primo epidermide tectis, dein erumpentibus, subhemisphæricis, submembranaceis, atris, glabris, levibus, papillato-ostiolatis 150-200 μ. diam.; ascis clavatis, apice obtuse rotundatis, basi breve stipitato-curvatis, octosporis, 120-150 × 25-40; paraphysibus filiformibus, apice subclavatis, septatis, hyalinis, 4 μ. cr.; sporidiis distichis, oblongo-ellipsoideis vel ovoideis, utrinque obtusis, 7-se- 2619

ptatis, muriformibus, plus minus constrictis, melleis dein atro-brunneis, 20-45 × 12-20 (medie 30 × 15).

Hab. in petiolis Aphyllanthis monspeliensis, in horto botanico Berolinensi Germaniæ.

35. **Pleospora Convallariæ** Cocc. et Mor. — Syll. IX, pag. 886. — 2620
f. **Polygonati** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 184. — A typo differt peritheciis majoribus 150-200; sporidiis angustioribus, 35-38 × 10, 7-septato-muriformibus.

Hab. in caulibus Polygonati vulgaris, Luxemburg. — Perithecia sæpius tam in typo quam in var. setulis conspersa, hinc potius *Pyrenophoræ* spec.

36. **Pleospora socialis** Niessl et Kunze — Syll. II, p. 264. — f. **Lini** 2621
Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 181. — A typo distinguitur peritheciis paullo majoribus, 200-300 μ. diam. et glabris; sporidiis 5-septato-muriformibus, 18-24 × 9-10.

Hab. in caulibus siccis Lini spec., Luxemburg.

37. **Ploespora Sisyrinchii** Speg. Myc. argent. ser. II, 1902, p. 71. — 2622
Maculis nullis; peritheciis primo tectis, dein nudis, superficialibus, sublenticularibus, papillulatis, in sicco sæpius cupulato-collapsis, 250-350 μ. diam., coriacellis; contextu atro-olivaceo, opaco, ostiolo minute papillulato acutiusculo; ascis crasse tunicatis, apice obtusiusculis, deorsum cuneato-attenuatis brevissimeque pediccilatis, 100-140 × 25 aparaphysatis; sporidiis distichis, horizontaliter 3-septatis, ad septa constrictulis, 30 × 15, loculis septo altero verticali continuo divisis, e latere subcylindraceis 10 μ. cr. et septo verticali destitutis, primo olivaceis dein atro-olivaceis v. fuligineis.

Hab. ad folia arida Sisyrinchii juncei, secus Rio Gallego in Patagonia.

38. **Pleospora spinosella** Rehm — Syll. II, p. 272. — var. **Luzulæ** 2623
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, pag. 147. — A typo differt ascis sporidiisque conspicue majoribus, nempe ascis 100-180 × 24-30 sporidiisque 33-45 × 12-20.

Hab. in culmis Luzulæ maximæ, Luxemburg.

39. **Pleospora Feltgeni** Sacc. et Syd. — Syll. XVI, p. 547. — var. 2624
Pseudacori Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 183. — A typo differt sporidiis dimidio minoribus.

Hab. in caulibus Iridis Pseudacori, Luxemburg. — var. **Eriophori** Feltg. l. c. — A typo differt ascis 6-8-sporis, clavatis vel cylindraceis 205-230 × 27-33; sporidiis 7-septato-muriformibus

35-45 × 13-18, utrinque pallidioribus. In culmis Eriophori angustifolii, Luxemburg.

40. **Pleospora lacustris** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 185. — Peritheciis sparsis, immersis, globoso-depressis, nigris, 200-250 μ. diam., papilla minutissima erumpentibus; ascis clavatis, breve stipitatis, 80 × 18-20, paraphysatis, octosporis; sporidiis 2-3-stichis, elliptico-fusoideis, obtusis, vulgo curvis, 9-rarius 11-septato-muriformibus, constrictis, flavo-brunneis, 33-40 × 8-10. 2625

Hab. in caulibus siccis Typhæ angustifoliæ, Luxemburg.

41. **Pleospora Alismatis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 16. — Peritheciis sparsis, erumpentibus, hemisphærico-prominulis, paullo convexis 200 μ. diam.; ascis clavato-cylindraceis, breve stipitatis 90-100 × 12-15, paraphysibus stipatis, filiformibus, obvallatis; sporidiis monostichis v. fere distichis, fusoideo-oblongis inæquilateralibus, 7-9-septatis, muriformibus, 22-27 × 10-12, raro 15 μ. diam, 2626

Hab. in caulibus emortuis Alismatis Plantaginis, South Dakota, Amer. bor. (D. Griffiths).

42. **Pleospora culmigena** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 145. — Peritheciis gregariis, tectis, globosis, nigris 100-300 μ. diam., ostiolo obtuse conico erumpentibus; ascis clavatis breve nodoso-stipitatis 91 × 10,5 (tetrasporis) vel 156 × 10,5 (octosporis), filiformi-paraphysatis; sporidiis 1-2-stichis, ovato-oblongis v. fusoideis, rectis 6-9-frequentius 8-septato-muriformibus, constrictis, flavis, 29-32 × 10,5. 2627

Hab. in caulibus putridis Cerealium, Luxemburg. — *Pleosporæ straminis* affinis.

43. **Pleospora gigantasca** Rostr. Islands Svampe in Bot. Tidsskrift, 1903, vol. 25, p. 307. — Peritheciis sparsis, globosis; ascis oblongo-claviformibus, 240-250 × 60-65; sporidiis luteis, 9-septatis, 55-65 × 23-27 e latere compressis 16-18 μ. cr., ad septa constrictis, reticulariter costatis, guttulatis. 2628

Hab. in foliis Elymi arenarii, Islandia.

44. **Pleospora Glyceriæ** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 145. — Peritheciis gregariis vel sparsis vel seriatis, globosis 300-500 μ. diam., immersis, ostiolo acute conico emergente; ascis tereti-clavatis breve stipitatis, 110-115 × 15-18, octosporis; sporidiis elliptico-oblongis, rectis curvulisve 9-11-septato-muriformibus, medio constrictis, 1-2-stichis, 21-26 × 8, flavo-brunneis. 2629

Hab. in culmis siccis Glyceriæ fluitantis, Luxemburg.

45. **Pleospora polymorpha** Maublanc in Bull. Soc. Myc. de France 1903, fasc. 3, p. 291, tab. XV, fig. 1. — Peritheciis aggregatis, longitudinaliter seriatis, nigris, innatis, erumpentibus, basi tenuato-cuneatis, vix papillatis; ascis clavatis 140-170 × 20-27; paraphysibus filiformibus; sporidiis oblongis, interdum utrinque attenuatis, parte superiore crassiore, 7-septatis, ad septa leniter constrictis, loculis 1-2 longitudinaliter septis divisis, melleis, 32-36 × 13-14, mycelio fusco. 2630

Hab. in paniculis Gynerii argentei, Pornic Galliæ.

46. **Pleospora Sorghi** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 181. — Peritheciis sparsis, innatis, globosis, 150-250 μ. diam., breve conico-papillatis; ascis cylindraceis, breve stipitatis, 6-8-sporis, 102-142 × 10-13, filiformi-paraphysatis; sporidiis monostichis oblongo-ellipsoideis vulgo 5-septato-muriformibus, constrictis, flavis, 15-20 × 7,5-10, episporio levi. 2631

Hab. in culmis putrescentibus Sorghi, Luxemburg. — Affinis *Pleosp. microsporæ*.

47. **Pleospora Farlowiana** Rehm, Ann. Mycol. 1904, p. 177. — Peritheciis sparsis, innatis, globosis, glabris, vix papillulatis, atris ca. 150 μ. diam.; ascis clavatis 80-90 × 20, octosporis; sporidiis ellipticis apice superiore subacutatis, inferiore rotundatis, 3-septatis, cellulis mediis rarius et apicalibus semel longitudinaliter divisis, medio interdum subconstrictis, melleis, 20-22 × 10-12, distichis; paraphysibus ramosis. 2632

Hab. ad Selaginellam rupestrem, White Fish Lake, Ontario, Amer. bor. (Farlow). — A ceteris Lycopodiorum incolis, sporidiis minus septatis minoribusque plane diversa species.

48. **Pleospora filicina** Feltg. Vorstud. Pilz. Luxemb. 1903, Nachtr. III, p. 186. — Peritheciis gregariis vel sparsis, cuticula tectis, globoso-depressis vix papillatis, brunneis, 80-150 μ. latis; ascis cylindraceis, breve stipitatis 136-150 × 15-17, octosporis; paraphysibus . . . . non visis; sporidiis monostichis, elliptico-cylindraceis, obtusis, rectis, 3-rarius 5-septato-muriformibus, brunneis 22-27 × 10-11. 2633

Hab. in stipitibus Pteridis aquilinæ, Luxemburg. — A *Pleosp. Pteridis* bene distincta.

PYRENOPHORA Fr. — Syll. II p. 277, IX p. 895, XI p. 344, XIV p. 602, XVI p. 549.

1. **Pyrenophora flavo-fusca** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2634

1903, p. 202. — Peritheciis gregariis v. subcæspitosis, subcutaneis, globoso-depressis dein erumpentibus 100-150 rarius 250 μ. diam., ostiolo minute conico-papillato præditis, inferne flavidis, sursum brunneis et setis 40-80 × 5-8 nigricantibus vestitis; ascis ellipticoclavatis, breve crasse stipitatis, filiformi-paraphysatis, 8-sporis, 125-150 × 27-40; sporidiis subdistichis, late ellipsoideis, rectis 7-septato-muriformibus, constrictis, sursum crassioribus e flavo brunneis, 33-37 × 13-16.

Hab. in sarmentis siccis Clematidis Vitalbæ, Luxemburg.

2. **Pyrenophora Clematidis** Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 23. — Peritheciis nigris, tectis, dein erumpentibus, 150-175 μ. diam., profunde collabentibus, setulis rigidulis brunneis 30-50 μ. longis, parce vestitis, ostiolo papillatis; ascis obovatis 80-90 × 20-25; paraphysibus filiformibus; sporidiis distichis, ovalibus 5-7-septatis, loculis 1-2 longitudinaliter divisis, luteo-brunneis dein brunneo-opacis, 20-30 × 12-15. 2635

Hab. in caulibus emortuis Clematidis ligusticæfoliæ, Hermosa, South Colorado, Amer. bor.

3. **Pyrenophora Castillejæ** Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 23. — Peritheciis sparsis, nigris, tectis dein erumpentibus, 150-200 μ. d., collabentibus, setulis fuscis, crispulis 40-100 × 4, superne vestitis, poro pertusis parce papillatis; ascis ovoideis vel obovatis 80 × 30; paraphysibus filiformibus asco longioribus; sporidiis distichis ovoideis, 5-7-septatis, 2-3 longitudinaliter divisis, initio luteolis 1-septatis, dein intense brunneis, 25-30 × 10-12. 2636

Hab. in caulibus emortuis Castillejæ, Hermosa, South Colorado, Amer. bor. — *P. Eriogoni* affinis.

4. **Pyrenophora Eriogoni** Earle, Plantæ Bakerianæ, fasc. II, Fungi, pag. 24. — Peritheciis sparsis, tectis dein erumpentibus, intense brunneis, 250 μ. diam., subapplanatis; setulis, raro septatis, inferne intense fuscis, sursum fere hyalinis, 80-150 × 4; ostiolo incospicuo; ascis cylindraceis, crasse tunicatis 120 × 25; paraphysibus numerosis, filiformibus; sporidiis ovatis utrinque obtuse rotundatis, brunneis, 7-septatis, ad septum medianum constrictis, longitudinaliter 2-4-septatis, 25-30 × 12. 2637

Hab. in caulibus emortuis Eriogoni, Hermosa, South Colorado Amer. bor.

5. **Pyrenophora comata** (Niessl) Sacc. — Syll. II, p. 286. — var **alpina** Ferraris, Malp. 1904, pag. 489. — Peritheciis setulis paucis sed longis, rigidis, rectis, usque 120 μ. long; ascis 90-100 × 16- 2638

18; sporidiis 19 × 9, intense brunneis, subinde medio constrictulis.

Hab. in foliis emortuis Alsines aretioidis, Riva Valdobbia Ital. bor. (Carestia).

6. **Pyrenophora Pestalozzæ** Magn. in Bull. Herb. Boissier 1903, n. 7, p. 582, tab. IV, fig. 15-20. — Peritheciis hinc inde sparsis, subepidermicis, atris, subcarbonaceis, setulis rigidulis, filiformibus prope ostiolum vestitis; ascis oblongo-clavatis brevissime stipitatis octosporis; sporidiis subdistichis, 7-septato-muriformibus, medio vix constrictis, 34-35 × 13,5 brunneis. 2639

Hab. in foliis siccis Alsines Pestalozzæ in jugis alpinis Phrygiæ.

7. **Pyrenophora polyphragmoides** Saccardo et Scalia Harrim. Alaska Exped. Crypt. p. 28, pl. V, fig. 13. — Peritheciis erumpentibus, sparsis, punctiformibus, nigris, globulosis, 190–220 μ. diam., setis rigidis, fuscis septatis, 160-190 × 7–5, vertice vestitis; contextu parenchymatico, fuligineo; ascis cylindraceis, rectis curvulisve, apice rotundatis, brevissime oblique stipitatis, octosporis; sporidiis distichis, oblongo-fusoideis, utrinque obtusulis, initio 3-septatis, dein sub-7-septatis, melleis, tandem 9-12-septatis, murali-divisis, medio vix v. non constrictis, 36-56 × 18, fuligineis. 2640

Hab. in caulibus et foliis emortuis Polemonii humilis, Popof Island, Alaska (Harrington) — Affinis *Pyren. phæosporæ* et *P. polyphragmiæ* sed rite distincta.

8. **Pyrenophora Saisolæ** Griffiths — Syll. XVI, pag. 549. — var. **Majanthemi** Feltg. Vorstud. Pilz. Lux. Nachtr. III, 1903, p. 204. — A typo differt peritheciis minoribus 150-200 μ. diam. lenticularibus, setis validioribus vestitis sporidiisque irregularibus flavo-brunneis, 5-septato-muriformibus. 2641

Hab. in pag. super. foliorum Majanthemi bifolii, Luxemburg.

PLEOMASSARIA Speg. — Syll. II p. 239, IX p. 872, XI p. 341, XVI p. 552.

1. **Pleomassaria Magnoliæ** Shear in Bull. of the Torr. Bot. Cl. 1902, p. 455. — Peritheciis gregariis, immersis, subcutaneis, depresso-sphæricis vel sublenticularibus, coriaceo-carbonaceis 600-800 μ. diam., ostiolo conico erumpenti donatis; ascis clavatis, breve stipitatis, octosporis, 195-230 × 55-60; paraphysibus filiformibus; sporidiis irregulariter dispositis, oblongo-clavatis, ad septum medianum 2642

constrictis, initio hyalinis 3-6-septatis, dein olivaceis, septato-muriformibus, postremo brunneis, muco obvolutis, 66-78 × 21-23.

Hab. in ramis corticatis Magnoliæ obovatæ, Washington, Amer. bor. — Pycnidium est *Camarosporium Magnoliæ* Shear.

TEICHOSPORA Fuck. — Syll. II p. 290, IX p. 899, XI p. 345, XIV p. 603, XVI p. 550.

I. *Eu-Teichospora.*

1. **Teichospora Davidssonii** Rostr. Islands Svampe in Bot. Tidsskrift, 2643
1903, vol. 25, p. 309. — Peritheciis gregariis, primitus sub epidermide nidulantibus, dein superficialibus, 300-500 μ. diam., breviuscule papillatis; ascis breviter et abrupte pedicellatis, cylindraceis, 130 × 20; sporidiis monostichis, ellipsoideis, 3-4-septatis, loculo uno alterove septulo longitudinali diviso, flavis vel dilute fuscis 28-32 × 10-15.

Hab. in gemmis Salicis lanatæ, Islandia (O. Davidsson).

2. **Teichospora Cerasi** (Feltg.) Sacc. et Syd. — Syll. XVI, p. 1139 2644
(nomen) *Strickeria* Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 197. — Peritheciis gregariis corticis fibris semiimmersis, globoso-ellipsoideis 150-250 μ. diam., nigris, minute papillatis; ascis cylindraceis, breviter stipitatis, filiformi-paraphysatis, 117-126 × 10,5-13; sporidiis monostichis, cylindraceo-ellipsoideis, utrinque rotundatis, 5-septatis, profunde constrictis, flavis, 15-18 × 7-9,5, cellulis mediis 4, longitrorsum 1-septatis.

Hab. in ramis decorticatis Cerasi avium, Luxemburg.

3. **Teichospora disconspicua** Rehm, Œst. Bot. Zeitschr. 1903, p. 11. 2645
— Peritheciis dispersis, sessilibus, globulosis, non collabentibus, vix papillulatis, atris, glabris, fusce parenchymatice contextis, 180 μ. diam.; ascis clavatis, apice rotundatis, 50-60 μ. long., 15 μ. latis, octosporis; sporidiis oblongis, vix ellipsoideis, utrinque obtusis, transverse 3-dein 5-septatis, una alterave cellularum mediarum semel longitudinaliter divisis, unaquaque cellula guttulam oleosam magnam continentibus, ad septa vix constrictis, dilute hyalino-fuscidulis, 15 × 7, distichis; paraphysibus ramosis 1,5 μ. cr.

Hab. ad frustula putrescentia Pini, in Tirolia. — Jodi ope paraphyses mucosæ dilute vinoso-rubro tinguntur.

4. **Teichospora subcorticalis** (Feltg.) Sacc. et D. Sacc. *Strickeria sub-* 2646

corticalis Feltg. Vorst. Pilz. Luxemb. Nacktr. III, 1903, p. 274. — Peritheciis sparsis vel gregariis, erumpentibus, basi insculptis, globosis vel subconoideis non collabascentibus, nigris, membranaceo-coriaceis, extus rugulosis 250-350 μ. diam. ostiolo globuloso vel breve cylindraceo; ascis cylindraceis, octosporis, breve stipitatis 108-121 × 10-11, filiformi-paraphysatis; sporidiis monostichis, elliptico-ovoideis vel clavulatis, sursum amplioribus, 3-septato-muriformibus, leviter constrictis, flavo-brunneis, 16-18 × 8.

Hab. in cortice interiore Piri communis, Luxemburg.

5. **Teichospora Symphoricarpi** (Tracy et Earle) Sacc. et D. Sacc *Strickeria Symphoricarpi* Trac. et E. Plantæ Baker. I, pag. 30. — Peritheciis sparsis vel subgregariis in areis nigrescentibus, carbonaceis, nigris, globosis 0,5–1 mm. diam., rugosis, ostiolo minute papillato donatis; ascis cylindraceis, breve stipitatis 150–200 × 16; paraphysibus numerosis, filiformibus; sporidiis monostichis, fere ovalibus, initio luteis, 1-septatis, et valde constrictis, dein fuscis, 3-5-septatis, postremo 7-septatis, ad septum centrale constrictis, 25 × 12, longitudinaliter divisis. 2647

Hab. in ramulis decorticatis Symphoricarpi spec. Bob Creek Colorado, Amer. bor. — *T. strigosæ* E. et Ev. affinis.

6. **Teichospora nivalis** v. Höhn. in Rehm Ascom. exs. n. 1564 et Ann. Mycol. 1904, p. 518. — Peritheciis superficialiter sessilibus, dispersis v. 2-3-congregatis, globulosis, vix ostiolatis, demum sæpe paullulum collabentibus, atris, scabris, carbonaceis, fragilibus, 750 μ. diam.; ascis cylindraceis, apice rotundatis, vix incrassatis 225 280 × 17-18 in stipitem brevem nodulosum 40 × 4 tenuatis, 6-8-sporis; sporidiis oblongo-ellipsoideis, utrinque rotundatis, apices versus attenuatis, transverse 7-12-longitudinaliter 2-3-septatis, fuscis, 33-40 × 14-14,5, monostichis; paraphysibus numerosissimis, ascos superantibus, sæpe ramosis, 1–1,5 μ. cr. 2648

Hab. in spinis rhachidis Astragali sp. in alveis nivalibus ad 2700-2900 m. ad Argasum Asiæ minor. (Dott. E. Zederbauer). — Asci subinde minores 190 × 15 et tunc sporidia 25 × 10, tantum 7-8-septata.

7. **Teichospora pilosa** Bacc. in N. Giorn. bot. ital. 1904, p. 416. — Peritheciis sparsis, superficialibus, globosis 300 μ. diam. minute ac inconspicue papillatis, levibus vel basi tantum setis rigidis cinctis; subiculo atro ex hyphis erectis simplicibus 100 × 15, forsitan conidiiferis, insidentibus; ascis cylindricis paraphysibus tenuibus hyalinis, æquilongis obvallatis, 200 × 17; sporidiis trans- 2649

verse triseptatis ad medium constrictis, loculis extremis pallidioribus, medianis longitudinaliter septatis, oblique monostichis 30 × 13.

Hab. ad caules siccos herbarum quarumdam, Pisa Italiæ. — Præsertim subiculi dematiacei præsentia species dignoscitur.

II. *Strickeria* Körb.

8. **Teichospora Amelanchieris** (Earle) Sacc. et D. Sacc. *Strickeria Amelanchieris* Earle, Plantæ Bakerianæ, fasc. II, Fungi p. 14. — Peritheciis sparsis vel interdum gregariis, nigris, levibus, valde collapsis 350 μ. diam., ostiolo indistincto pertusis; ascis clavato-cylindraceis 100 × 6; paraphysibus filiformibus suffultis; sporidiis subdistichis, subovalibus, sæpe curvulis, 5-7-septatis, muriformibus, ad septum medianum constrictis, 30-35 × 7-10. 2650

Hab. in ramulis decorticatis Amelanchieris spec. Hermosa, Colorado, Amer. bor.

9. **Teichospora Cercocarpi** (Earle) Sacc. et D. Sacc. *Strickeria Cercocarpi* Earle, Plantæ Baker. fasc. II, Fungi p. 14. — Peritheciis in ligno nigrificato immersis sparsis, vel 3-4 cæspitoso-congestis, nigris, rugosis, superne collapsis, circ. 500 μ. diam., ostiolo minute papillato, inconspicuo donatis; ascis cylindraceis, breve stipitatis, ca. 100 × 10; paraphysibus numerosissimis, filiformibus, asco longioribus; sporidiis monostichis subovatis, intense brunneis, 7-septatis muriformibus, ad septum medianum constrictis, superne obtusis vel subacutis, 20-25 × 8. 2651

Hab. in ramis decorticatis Cercocarpi, Hermosa, South Colorado, Amer. bor.

10. **Teichospora Populi** (Earle) Sacc. et D. Sacc. *Strickeria Populi* Earle Plantæ Bakerianæ f. II, Fungi p. 15. — Peritheciis sparsis, nigris, lucentibus, 500 μ. diam., subglobosis, demum leniter collapsis vel superne incisis, ostiolo simplici pertusis; ascis 80 × 16; sporidiis monostichis, initio luteolis dein brunneis, 3-septatis, ad septa constrictis, muriformibus, utrinque obtusis, 18-20 × 8-10. 2652

Hab. in ramis decorticatis Populi angustifoliæ, Durango, Colorado, Amer. bor.

11. **Teichospora Fendleræ** (Earle) Sacc. et D. Sacc. *Strickeria Fendleræ* Earle Plantæ Bakerianæ fs. II, Fungi p. 15. — Peritheciis sparsis vel gregariis, nigris, lucentibus, collapso-patelloideis 200-300 μ. diam.; ascis cylindraceis, crasse tunicatis, 80-100 × 20, paraphysibus filiformibus, obvallatis; sporidiis distichis, oblongis, utrinque 2653

obtuse rotundatis, 4-septatis, muriformibus, initio hyalinis, dein brunneis 25-30 × 10.

Hab. in ramis Fendleræ rupicolæ, Hermosa, Colorado, Amer. bor.

12. **Teichospora rhoina** (Earle) Sacc. et D. Sacc. *Strickeria rhoina* Earle Plantæ Bakerianæ fasc. II, Fungi p. 16. — Peritheciis dense sparsis, basi profunde immersis, nigris 500-750 μ. diam. denique collapsis, ostiolo minute papillato donatis; ascis cylindraceis breve stipitatis 100-120 × 10; paraphysibus filiformibus asco longioribus; sporidiis monostichis, ovatis, luteis vel brunneo-lucentibus, 3-4-septatis, dein 5-7-septatis, muriformibus, ad septum medianum leviter constrictis, 20 × 8. 2654

Hab. in ligno decorticato Rhois trilobatæ, Hermosa, Colorado, Amer. bor. — *Teichosporæ rhypodi* affinis.

PLEOSPHÆRIA Speg. — Syll. II p. 304, IX p. 910, XI p. 347, XIV p. 607.

1. **Pleosphæria albidans** Bäumler, Beitr. z. Cryptog. Fl. des Presb. Comit. 1902, pag. 32. — Peritheciis gregariis, innatis, dein plus minus superficialibus, globosis, 150-300 μ. diam., subcarbonaceis, extus rugosis pilisque brunneis, brevibus 3-4 μ. cr., vestitis, ostiolo minuto rotundo non collabascente; ascis breve stipitatis 80-90 × 10-12, copiose filiformi-paraphysatis, octosporis; sporidiis distichis, plerumque ascos totos implentibus, 16-19 × 7-8, utrinque rotundatis, vulgo deorsum paullo tenuatis 5-7-septato-muriformibus, medio leviter constrictis, brunneolis. 2655

Hab. in ligno dealbato, decorticato Aceris, in comitatu Presburg Hungariæ.

2. **Pleosphæria Lithospermi** Clements in Bull. of the Torr. Bot. Cl. 1903, p. 83. — Peritheciis sparsis, superficialibus, submembranaceis, globosis deinde collabentibus, minute papillatis, extus pilis simplicibus, septatis, brunneis 150 × 4-5, obsitis, sed vertice nudis 250 μ. diam.; ascis octosporis, late clavato-oblongis, paraphysatis, jodo non cærulescentibus, 120-140 × 20-25; sporidiis monostichis, oblongo-ellipticis, luteo-brunneis, 7-septatis, loculis 2-3-septatis, ad septum medium valde constrictis, ad cetera leniter constrictis 25-30 × 14-15. 2656

Hab. ad caules emortuos Lithospermi parviflori, Cross Ruxton, Minnehaha, Amer. bor.

3. **Pleosphæria xenochæta** Penz. et Sacc. in Malpighia 1902, p. 227 (ex 2657

errore sub *Teichospora*). — Perithecis dense gregariis, superficialibus, globulosis, minutis, carbonaceis, nigris 250-260 μ. d., vertice imperspicue papillatis, demum facile fractis et inæqualiter apertis, ubique laxe setulosis; setulis tereti-cuspidatis, pro loco plus minus longis, 50-100 × 7, continuis, aterrimis, sæpius curvulis, apice peculiariter oblique acuteque rostellatis et sub rostello pallidiore septatis; ascis jam resorptis; sporidiis maximis, obovatis vel suboblongis, utrinque obtusulis 95-100 × 28-36, rarius 56-58 × 30, deorsum paullo angustioribus 9-11-septatis septisque longitudinalibus pluri-seriatis, ad septa leviter constrictis, fuligineis.

Hab in petiolis Palmarum putrescentibus, Tjibodas, in insula Java. — Contextus peritheciis parenchymaticus, fuligineus. Perithecia basi hyphis mycelicis septatis, ramosis, ochraceis cincta.

CROTONOCARPIA Fuck. — Syll. II p. 306, IX p. 912.

1. **Crotonocarpia moriformis** Fuck. — Syll. II, p. 306 — Teste cl. v. Höhnel (in Ann. Mycol. 1903, pag. 523) ex autopsia exempl. Fuckeliani est *Cucurbitaria Berberidis* in Berberidis ramis, nec in Rubo. Etiam *Crotonocarpia moriformis* Fuck., Feltgen Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 290 ex ipsius complorati auctoris declaratione in litt. ad cl. H. Sydow (22-I-1904) est ipsissima *Cucurbitaria Berberidis* non in Junipero sed in Berberide! Singulare quod præclari mycologi Fuckel, Winter et Feltgen cum de fungo tum de ejus matrice decepti fuerint!

CUCURBITARIA Gray — Syll. II p. 307, IX p. 915, XI p. 348, XIV p. 607.

1. **Cucurbitaria arizonica** Ell. et Ev. in Journ. of Myc. 1902, vol. 8, p. 16. — Peritheciis erumpenti-superficialibus, 500 μ. diam., dense sparsis inferne collapsis, globosis, fusco-nigris, ostiolo præditis; ascis cylindraceis, p. sp. 75-80 × 12, breve stipitatis, paraphysatis; sporidiis generaliter oblique monostichis, oblongo-ellipticis, 3-septatis et submuriformibus, medio septo paullo constrictis, initio luteolis dein brunneo-nigris, 14 × 6-8. 2658

Hab. in ramis emortuis Acaciæ Grayii, Tucson, Arizona, Amer. bor. (D. Griffiths).

2. **Cucurbitaria Typhinæ** Ell. et et Ev. in Journ. of Mycol. 1903, p. 166. — Peritheciis subglobosis circ. 500 μ. diam., 2-6-congestis, erumpentibus; ostiolo papillato, inconspicuo, interdum subcompresso; ascis cylindraceis 120-150 × 15, subpedicellatis, octosporis; 2659

paraphysibus nullis vel indistinctis; sporidiis monostichis, oblongis vel oblongo-ellipticis, indistincte 6-septatis et muriformibus, parce constrictis, luteolis, 22-27 × 12, dein subopacis et cellulis eximis subhyalinis.

Hab. in caulibus emortuis Rhois typhinæ, Harraby, Lake Resseau, Ont., Canada, Amer. bor.

3. **Cucurbitaria juglandina** Ellis et Barth. in Journ. of Mycol. 1902, 2660
p. 174. — Peritheciis erumpentibus 5-10-congestis, 500 μ. diam. ostiolo inconspicuo donatis; ascis cylindraceis breve stipitatis, paraphysatis, 100-120 × 8-10; sporidiis monostichis, oblongo-obvatis 3-dein 5-7-septatis, luteo-brunneis, ad septum medium subconstrictis, 15-22 × 8-10, longitudinaliter septatis.

Hab. in ramis emortuis Juglandis nigræ, Rooks Co. Kansas, Amer. bor. — Ab affini *Cuc. Juglandis* differt ascis cylindraceis et sporidiis minoribus.

4. **Cucurbitaria Celtidis** Shear in Bull. of the Torr. Bot. Cl. 1902, 2661
p. 451. — Peritheciis 350-500 μ. d., dense gregariis v. subcæspitosis, areas latas occupantibus, erumpentibus et basi subimmersis, depresso-globosis, carbonaceis, rugulosis, collapsis, ostiolo papillato donatis; ascis cylindraceis, breve stipitatis vel subsessilibus, 140-180 × 16; sporidiis monostichis, initio hyalino-luteolis, maturitate intense brunneis, transverse 3-5-septatis, longitudinaliter 1-septatis, ad septa leviter constrictis, 24-27 × 8; paraphysibus superne ramosis, 3 μ. diam.

Hab. in ramis emortuis Celtidis occidentalis, Osborne, Kansas, Amer. bor.

5. **Cucurbitaria Pritzeliana** P. Henn. in Hedw. 1903, p. (80). — Pe- 2662
ritheciis erumpenti-superficialibus, botryose aggregatis, membranaceis, subglobosis v. ovoideis, granuloso-verrucosis, atris, contextu pseudoparenchymatico atro-fusco, ca. 240-280 μ. diam. basi hyphis fuscis, septatis, ramosis, ca. 2,5-3,5 μ. cr.; ascis clavatis, apice rotundatis, crasse tunicatis, 100-130 × 20-40, octosporis; paraphysibus obvallatis, copiosis apice fuscidulis; sporidiis subdistichis vel subtristichis, fusoideis, interdum utrinque hyalino-papillatis, pluri-septatis, muriformibus, primo rufo-brunneis, dein atro-castaneis 25-50 × 9-18.

Hab. in ramis corticatis, flum. Russel, N. Queensland Australiæ (Pritzel).

FENESTELLA Tul. — Syll. II p. 325, IX p. 922, XI p. 349, XIV p. 610, XVI p. 553.

1. **Fenestella gigaspora** P. Henn. in Engl. Bot. Jahrb. 1901, p. 41. 2663
— Syll. XVI pag. 1139 (nomen). — Stromatibus carbonaceis, atris, rotundato-pulvinatis, sub epidermide vertice applanato subnitenti erumpentibus, ca. 2 mm. diam.; peritheciis immersis, paucis 2-3 subglobosis; ascis cylindraceis 5-8-sporis, apice obtusis, 35-50 μ. cr.; paraphysibus copiosis, filiformibus, guttulatis, hyalinis 2-2,5 μ. cr.; sporidiis monostichis, oblonge ellipsoideis utrinque rotundatis, primo pallide flavis dein atro-brunneis, pluriseptato-fenestratis, plerumque 9-septatis, haud constrictis, 70-90 ≈ 35-45.

Hab. in ramis emortuis, Togo Africæ.

2. **Fenestella Prunastri** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2664
1903, pag. 121. — Stromatibus 1 mm. diam., gregariis, sparsis, conoideis, epidermide tumidula tectis, disco subrotundo, sordide brunneo, erumpente et epidermidis laciniis cincto; peritheciis 4-6 in quoque stromate, globosis, monostichis, collis brevibus adscendentibus, demum rostellatis, sed discum vix superantibus; ascis crasse clavatis, longiuscule stipitatis, filiformi-paraphysatis, 115-124 ≈ 22, octosporis; sporidiis distichis, oblongo-ellipsoideis, rectis curvulisve plerumque 3-rarius 4-septatis, leviter constrictis, cellulis longitrorsum 1-3-partitis, flavis, 20-22 ≈ 8-9.

Hab. in ramis corticatis siccis Pruni spinosæ, Luxemburg. — *Fenestellæ Lycii* proxime affinis.

3. **Fenestella Höhneliana** Rehm ap. Höhn. Ann. Mycol. 1904, p. 45. 2665
I. Fungus ascophorus. — Peritheciis sparsis vel ad 2-10 valsoideo-aggregatis, peridermio tectis, applanato-sphæroideis, 500-830 μ. latis, 300-400 μ. altis, contextu 30-40 μ. crasso, carbonaceo; collo subtus bene discreto, crasse tunicato (tunica usque 100 μ. crassa), ca. 300-400 μ. crasso et alto, late (usque 140 μ.) perforato, apice incrassato, sæpe fere infundibuliformiter dilatato, peridermium perforante; ascis cylindraceis, supra rotundatis, breve pedicellatis, 180-250 ≈ 16-18, octo-(sed etiam 2-7)-sporis, paraphysibus numerosis, septatis, filiformibus, 3 μ. crassis, guttulis oleosis farctis, obvallatis; sporidiis plerumque oblique monostichis, ellipsoideis, non constrictis, primum flavis, dein fuligineis, 6-8- (plerumque 7) -septatis, septis longitudinalibus 2-3 muriformiter divisis, 25-34 ≈ 12-16. — II. Fungus pycnidicus: *Dendrophoma Fenestellæ* v. Höhn. l. c. — Pycnidiis habitu peritheciis simillimis, intermixtis vel sparsis,

intus sporophoris dendroideo- vel fasciculato-ramosis, 30-60 × 1, dense obtectis; sporulis hyalinis, rectis vel curvulis, 3-6 × 1.

Hab. in ramulis emortuis corticatisque Berberidis vulgaris prope Silz (Oberinnthal) et prope Gries (Sellrain) Tiroliæ (Doct. Rehm) et in ditione Tumpen (Oetzthal) Tiroliæ (v. Höhnel). — Affinis *F. Amorphæ* Ell. et Ev.

THYRIDIUM Sacc. — Syll. II p. 323, IX p. 920, XI p. 348, XIV p. 609, XVI p. 553.

1. **Thyridium platense** Speg. Myc. argent. Ser. II, 1902, p. 73. — 2666
Stromatibus effusis per matricem laxe excurrentibus, linea nigra limitatis; peritheciis stromate vel ligno fere immutato immersis, dense constipatis, globosis, parvis 0,3-0,8 mm. d., ostiolo quandoque brevissimo non exserto quandoque longiuscule exserto donatis; contextu minuto densissime parenchymatico parum distincto, olivaceo; ascis cylindraceis, breviter pedicellatis, 160-180 × 12-18, densiuscule paraphysatis, octosporis; paraphysibus mucosis, guttulatis; sporidiis rectis vel oblique monostichis, levibus, sæpius 3, rarius 5-septatis, ad septa parum constrictis, septo altero longitudinali continuo divisis, loculis grosse 1-guttulatis, primo hyalinis dein fusco-fuligineis.

Hab. ad ramos vetustos Manihotis carthagenensis, La Plata in Argentina.

2. **Thyridium stilbostomum** Ell. et Ev. in Journ. of Mycol. 1903, 2667
p. 223. — Peritheciis globosis 350-500 μ. diam., sparsis vel in stromate 3-5-congestis, ostiolo depresso-hemisphærico, nigro donatis; ascis cylindraceis, stipitatis, paraphysatis, p. spor. 75-80 × 8-10; sporidiis monostichis, ellipticis, brunneis 6-7-septatis, submuriformibus, ad septum medium plus minusve constrictis, 22-27 × 7-10.

Hab. in ligno decorticato, emortuo Aceris saccharini, London, Colorado, Amer. bor.

Sect. 10. Scolecosporæ.

DILOPHIA Sacc. — Syll. II p. 357, IX p. 937, XIV p. 617.

1. **Dilophia Sempervivi** Rick, Bot. Zeitschr. 1903, p. 161. — Peri- 2668
theciis numerosis, per epidermidem transparentibus, vix erumpentibus, brunneis, 500 μ. diam., contextu e cellulis parvis, guttulatis

composito; ascis octosporis 150 × 8; sporidiis cylindraceis 50-70 × 2 apicem versus apiculatis, curvato-sinuatis, hyalinis, multi-septatis et multi-guttulatis.

Hab. in caule Sempervivi, Vorarlberg Austriæ.

ACERBIA Sacc. — Syll. XI p. 363, XIV p. 619.

1. **Acerbia rhopalasca** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 179. — Peritheciis sparsis vel gregariis, ligno omnino immersis, sæpe superficiem ligni tumefacientibus. 500 μ. diam., papilla applanata emergente; ascis rectis, lineari-clavatis, longe tenuato-stipitatis, apice rotundatis, 76-100 × 3-5, filiformi-paraphysatis; sporidiis filiformibus, superne rotundatis, basi acutiusculis, medio nodulosis et obsolete septatis, hyalinis, 76-100 × 1-2, eguttulatis vel 1-serialiter guttulatis. 2669

Hab. in ligno decorticato quercino. Luxemburg.

ACERBIELLA Sacc. n. g. (Etym. ab *Acerbia* cui affinis). — A proximo gen. *Acerbia* differt perithecii setigeris, ab *Ophiocerate* cum perithecii erostribus tum indumento piloso.

1. **Acerbiella macrospora** (Rick. Sacc. et D. Sacc. *Lasiosphæria macrospora* Rick, Broteria, 1904, p. 290. — Perithecii late gregariis ab initio superficialibus, 1 mm. diam., globosis, pilis rigidis acutis atro-umbrinis usque ad medium vestitis, ostiolo glabro minutulo, sed bene distincto; ascis cylindraceis, sessilibus, 8-sporis, 200 × 10, sursum tenuatis; sporidiis anguiformibus, multi-septatis usque 100 × 3-4, apicem versus angustioribus, ad septa subconstrictis, 1-guttulatis. 2670

Hab. ad ligna fabrefacta Rio Grande do Sul Brasiliæ.

CRYPTODERIS Auersw. — Syll. II p. 229, IX p. 771, XVI p. 535. 2671

1. **Cryptoderis caricina** Rehm Ascom. exs. n. 1557 et Ann. Mycol. 1904, p. 519. — Perithecii innatis, globulosis, usque 300 μ. d., ad basim hyphis permultis simplicibus, fuscis, septatis 4 μ. cr. obsessis, rostro filiformi, apice hyalino, obtuso, 180-500 × 90 prominente, contexta perithecii parenchymatico, haud carbonaceo; ascis tereti-subclavatis, apice rotundatis, 70-80 × 8-9, octosporis; sporidiis bacillaribus, apice obtusis, basim versus acutatis, subcurvatis, grosse 4-6-guttatis demum 3-5-septatis, 30-33 × 3-3,5, popolystichis, hyalinis; paraphysibus nullis.

Hab. ad folia putrida Caricis vulpinæ, Göda Saxoniæ (Feurich).

OPHIOBOLUS Riess — Syll. II p. 337, IX p. 923, XI p. 351, XIV p. 614, XVI p. 557.

1. **Ophiobolus eburensis** Sacc. — Syll. II, p. 342. — f. **Hellebori** Feltg. 2672
Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 167. — A typo vix differt præter matricem, peritheciis demum depresso concavis, ostiolis breviter cylindraceis, sporidiisque, apice rotundatis, basi acutatis, minute pluriguttulatis 120-130 × 1,5-2, ex hyalino flavidis.

Hab. in caulibus siccis Hellebori viridis, Luxemburg.

2. **Ophiobolus oxysporus** (Feltg.) Sacc. et D. Sacc. *Leptosphæria oxy-* 2673
spora Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 165. — Peritheciis gregariis, omnino innatis, globoso-depressis, 200-300 μ. diam., ostiolo perithecii longitudine, tenui cylindraceo; ascis teretti-clavatis, sensim tenuato-stipitatis, apice rotundatis, 104 × 6,5, filiformi-paraphysatis; sporidiis parallele fasciculatis, longe fusoideis, utrinque acutissimis, 1-2-curvatis, medio constricto-1-septatis, quaque cellula tenuissime 3-4-septata guttulataque, hyalinis, 78 × 1,5-2,5.

Hab. in ramis siccis Rubi idæi, Luxemburg.

3. **Ophiobolus carneus** v. Höhnel Fragm. zur Mykol. 1903, p. 10. — 2674
Peritheciis 400-500 μ. latis, nigris, primum ligni fibris tectis, demum erumpentibus, superficialibus, collabascendo cupulatis, a basi dense fibrillosis; paraphysibus filiformibus, 3 μ. crassis; ascis cylindraceo-clavatis, 150-200 × 8 octosporis; sporidiis 100-120 × 2,5-3, filiformibus, medio noduloso-incrassatis, hyalinis, catervatim dilute roseis vel fere carneis, acute septatis (cellulis 6-7 μ. longis).

Hab. in ligno denudato ramulorum Staphyleæ pinnatæ in silvis Wienerwald, vallis « Wassergesprenge » dictæ, Austriæ inferioris.

4. **Ophiobolus surculorum** Pass. — Syll. IX, p. 930. — var. **Deutziæ** 2675
Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, p. 174. — Differt a typo peritheciis non collabentibus, hyphis basilaribus copiosis; ascis perfecte cylindricis, 140-160 × 8; sporidiis utrinque obtusis, distincte septatis, 120-136 × 2,5-3, flavo-brunneolis.

Hab. in ramulis siccis corticatis Deutziæ scabræ, Luxemb.

5. **Ophiobolus camptosporus** Sacc. — Syll. II, p. 344. — var. **gona-** 2676
tosporus Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 143

et Nachtr. III, p. 174 (ut var. *sorbicola*). — A typo differt ostiolis breve cylindraceis, ascis angustioribus, 104-160 × 8,5-10; sporidiis vulgo pluri-septatis, 3-4 nodulosis et profundius constrictis, flavo-brunneolis.

Hab. in ramulis siccis Sorbi Ariæ, Luxemburg.

6. **Ophiobolus porphyrogonus** (Tode) Sacc. — Syll. II, pag. 338. — 2677
var. **Astragali** P. Henn. Hedw. 1902, p. 135. — Peritheciis primo tectis, dein erumpentibus, globoso-conicis, nigris 400 600 μ. d., plerumque in maculis caulium rubris dispositis; ostiolo pertusis 60 μ. diam.; ascis cylindraceis, breve pedicellatis, 160-250 × 4-6, generaliter longioribus quam in typo; paraphysibus filiformibus 2 μ. cr. hyalinis; sporidiis septatis filiformibus, 140-220 × 1-1,5, hyalinis.

Hab. in caulibus Astragali sp. ex Armenia cultæ in horto botanico Berolinensi Germaniæ.

7. **Ophiobolus Sarothamni** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 2678
1903, p. 174. — Peritheciis sparsis gregariisve, omnino immersis, globosis, nigris, 300 μ. diam., ostiolo acute conoideo emergente; ascis cylindricis, breve stipitatis, 125-136 × 5,5-7, octosporis; sporidiis filiformibus, utrinque obtusis, flexuosis, hyalinis, pluri-guttulato-septulatis, 125 × 2.

Hab. in ramis corticatis Sarothamni, Luxemburg.

8. **Ophiobolus acerinus** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2679
1903, p. 175. — Peritheciis sparsis, basi insculptis, globoso-depressulis, rugulosis, nigris, 500-1000 μ. diam., ostiolo cylindraceo vel conoideo; ascis cylindricis, breve stipitatis, 100-130 × 5-6, octosporis, leviter, prope medium vero profundius constrictis, hyalinis vel flavidis, 85-110 × 2-2,5.

Hab. in ramis decorticatis Aceris campestris, Luxemburg. *Oph. salicino* proxime affinis.

9. **Ophiobolus Rhamni** Feltg. Vorst. Pilz. Luxemb. Nachtr. II, 1901, 2680
p. 143 et I p. 237, *f*). — Peritheciis immersis, ostiolo breve conoideo epidermidem perforante; ascis tereti-clavatis, longiuscule stipitatis 160-175 × 11-12, paraphysibus noduloso-septatis obvallatis; sporidiis flexuosis pluriseptatis 105-125 × 3-3,5, ex hyalino flavidis, articulis nonnullis prominulis.

Hab. in ramis corticatis Rhamni catharticæ, Luxemburg.

10. **Ophiobolus Vitalbæ** Sacc. — Syll. II, pag. 345. — f. **Berberidis** 2681
Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, pag. 143 et I, p. 236, *c*). — Peritheciis subcutaneis, ostiolo papillato-erumpente;

sporidiis multiseptatis, valde curvatis, utrinque obtusis, hyalinis, cellula media crassiore; ascis non descriptis.

Hab. in ramulis siccis Berberidis vulgaris, Luxemburg. — f. **Sambuci** Feltg. l. c. et Nachtr. I, p. 236, *d*). — Peritheciis basi ligno insculptis, globoso-conoideis, hyphis septatis brunneis cinctis, ostiolo conoideo brevi, erumpente; ascis longiuscule stipitatis 125-175 × 6-9; sporidiis parellelis, 100-160 × 2,5-3, curvatis, pluriseptatis, plerumque bi-nodulosis hyalinis vel brunneolis. — In ramulis siccis corticatis v. decorticatis Sambuci racemosæ, Luxemburg.

11. **Ophiobolus Antenoreus** Berlese — Syll. IX, p. 929. — f. **Sambuci** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 175. — A typo vix recedit peritheciis depressis 200-300 μ. diam.; sporidiis brunneolis 140-150 × 1-1,3, pluriseptatis. 2682

Hab. in ramis decorticatis Sambuci nigræ, Luxemburg.

12. **Ophiobolus pellitus** (Fuck.) Sacc. — Syll. II, p. 352. — f. **Bidentis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 167. — A typo differt peritheciis minoribus 250 μ. diam. extus hyphis setulisque vestitis; ascis paullo brevioribus 120 × 7,5-8; sporidiis crassioribus 2-2,5 μ. cr. et paraphysibus non simplicibus. 2683

Hab. in caulibus siccis Bidentis tripartiti, Luxemburg.

13. **Ophiobolus persolinus** (Cald. et De Not.) Sacc. — Syll. II, p. 346. — var. **brachystomus** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 171. — A typo differt ostiolo verruculoso vel breviter conoideo nec cylindraceo (ut in Berlese icon.); sporidiis obsolete septatis, flavidis, 90-135 × 2-2,5. 2684

Hab. in caulibus Centaureæ Jaceæ, Luxemburg.

14. **Ophiobolus calathicola** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, pag. 172. — Peritheciis sparsis vel subaggregatis, innato-erumpentibus dein subliberis, globoso-conicis 150-200 μ. diam., ostiolo cylindrico-conico, perithecium subæquante; ascis cylindraceis breve stipitatis, filiformi-paraphysatis, octosporis, 120-130 × 4,5-6,5; sporidiis deorsum tenuatis, flexuosis, circiter 14-septatis, flavidis 115 × 2,5-3. 2685

Hab. in bracteis florum Centaureæ Jaceæ, Luxemburg. — *Ophiobolo affini* valde proximus.

15. **Ophiobolus fruticum** (Rob. et Desm.) Sacc. — Syll. II, p. 347. — f. **Dulcamaræ** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, pag. 173. — A typo differt peritheciis depresso-applanatis; ascis versiformibus, sæpius longe stipitatis, usque 200 × 10-11; spori- 2686

diis inæqualiter articulatis, hyalinis 117-150 × 2,7-3,5, usque 20-septatis.

Hab. in caulibus siccis Solani Dulcamaræ, Luxemburg.

16. **Ophiobolus collapsus** Ell. et Sacc. — Syll. II, pag. 339. — var. **trinodulosus** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 170. — A typo differt sporidiis usque 12-septatis 125-140 × 2,5, medio et prope apices nodulosis, hyalinis. 2687

Hab. in caulibus siccis Teucrii Scorodoniæ, Luxemburg.

17. **Ophiobolus Georginæ** (Fuck.) Sacc. — Syll. II, p. 341. — var. **Symphyti** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 172. — Peritheciis immersis brunneolis, non erumpentibus, pilosulis 500 μ. diam., ostiolo acute conico longiusculo; ascis 217-225 × 4, parte sporif. 120-160; sporidiis 150-163 × 0,7-1, continuis, eguttulatis, flavidis. 2688

Hab. in caulibus siccis Symphyti, Luxemburg.

18. **Ophiobolus Castillejæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fungi p. 34. — Maculis nullis; peritheciis sparsis, erumpentibus, nigris, 200-250 μ. diam.; ascis clavatis, breve stipitatis 90-120 × 12; paraphysibus flexuosis, filiformibus; sporidiis luteo-brunneis, guttulatis 50-55 × 5, in asco fere recte dispositis. 2689

Hab. in ramulis emortuis Castillejæ confusæ, Greene, Mt. Hesperus, Colorado, Amer. bor.

19. **Ophiobolus Heveæ** P. Henn. Fungi Amaz. II, p. 243, Notizbl. Berl. bot. Mus. IV, n. 34, 1904, fig. 4 *a–d*. — Maculis rotundatis vel effuso confluentibus, griseis; peritheciis epiphyllis gregarie sparsis, innatis tectis, ovoideis, ca. 250 μ. diam. submembranaceo-atris; ostiolis subconico-obtusis, subnitentibus erumpentibus; ascis subfusoideis vel clavatis, apice subincrassatis, obtusiusculis, ca. 60-70 × 7-10, 8-sporis; paraphysibus filiformibus, hyalinis, ca. 2 μ. crassis; sporidiis parallelis, filiformibus, utrinque obtusiusculis, hyalinis, pluriguttulatis, demum subseptatis, 50-60 × 2-3. 2690

Hab. in foliis Heveæ, Rio Negro, Sao Joaquin Amazoniæ. — *Oph. Ingæ* affinis et ad gen. *Linosporam* nutans.

20. **Ophiobolus petiolaris** Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. II p. 143 et I p. 236, *f*). — Peritheciis sparsis omnino immersis, subglobosis, basi applanatis, mediocribus, nigris, ostiolo brevissimo obtuse cylindraceo; ascis cylindricis 180-190 × 9; sporidiis filiformibus, utrinque acutiusculis indistincte septatis et minute guttulatis non nodosis nec constrictis, 175 × 2-3, hyalino-flavidis. 2691

Hab. in rhachide foliorum Juglandis regiæ, Luxemburg.

21. **Ophiobolus Alismatis** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. 2092
II, p. 139 et I, p. 231 *c*). — Peritheciis sparsis vel approximatis immersis, globoso-ellipsoideis, ostiolis longe conoideo-cylindraceis erumpentibus; ascis cylindricis subsessilibus, 125-150 × 8-9, filiformi-paraphysatis; sporidiis filiformibus, 125-130 × 2-3, eguttulatis vel pluriguttulatis, prope medium nodulosis ex hyalino flavidis.

Hab. in caulibus siccis Alismatis Plantaginis, Luxemburg.

22. **Ophiobolus pedunculariis** Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. 2093
II, pag. 139. — Peritheciis gregariis immersis, globosis, 250-300 μ. diam., ostiolo conoideo vel fere cylindraceo; ascis cylindraceis vulgo breviter stipitatis 112-140 × 4-5; sporidiis parallelis, filiformibus, utrinque acutulis, 86-130 × 1-1,3, pluriguttulatis, guttulis sæpe per paria approximatis obsoleteque pluriseptatis.

Hab. in pedunculis siccis Iridis Pseudacori, Luxemburg.

23. **Ophiobolus bactrosporus** Feltg. Vorstud. Pilz. Luxemb. 1901, 2094
Nachtr. II, p. 139. — Peritheciis gregariis, globosis, basi applanatis hyphisque brunneis cinctis 300 μ. diam., ostiolo breve conoideo, epidermidem perforante; ascis cylindraceis breve stipitatis 164-200 × 5-6,5; sporidiis parallelis, filiformibus, utrinque acutiusculis, usque 16-septatis, leviter constrictis, pluriguttulatis, hyalinis 156-172 × 1,7-2.

Hab. in caulibus Iridis Pseudacori, Luxemburg. — *Ophiobolo fragilisporo* affinis.

24. **Ophiobolus Pseudacori** Feltg. Vorst. Pilz. Luxemburg, Nachtr. 2095
II, 1901, p. 139. — Peritheciis gregariis immersis, globoso-applanatis 200-300 μ. diam., ostiolo cylindraceo, longo, acutiusculo, epidermidem perforante; ascis cylindricis, longiuscule stipitatis 84-88 × 5; sporidiis parallelis tereti-filiformibus, utrinque rotundatis, 8-11-septatis, septo tertio profundius constrictis, hyalinis 65-78 × 2, cellula tertia crassiore.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg.

25 **Ophiobolus Feltgeni** Sacc. et D. Sacc. *Leptosphæria longispora* 2096
Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p 156. — Peritheciis sparsis, innatis, ostiolo late papillato erumpentibus, 500 μ. diam.; ascis longe clavatis, apice rotundatis, deorsum sensim longe pedicellatis, 97-130 × 6,5-8, filiformi-paraphysatis, octosporis; sporidiis parallele fasciculatis, fusoideo-cylindraceis, utrinque acutiusculis, multiseptatis, loculis 10-15 nodulosis, 60-95 × 1,5-2,5, ex hyalino flavidis.

Hab. in caulibus siccis Iridis Pseudacori, Luxemburg. — Ad *Ophiobolum longisporum* nutat.

26. **Ophiobolus Typhæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, p. 139 et I, p. 231, n. 711 *b.*) — Peritheciis perexiguis; sporidiis 75-100 × 3, curvatis, 7-9-septatis, multiguttulatis. 2697

Hab. in foliis Typhæ latifoliæ, Luxemburg.

27. **Ophiobolus juncicola** Rehm in Œst. Bot. Zeitschr. 1904, p. 87. — Peritheciis sparsis, immersis, modo papillula conoidea prominentibus, globosis, glabris, parenchymatice contextis, fuscidulis 150-200 μ. diam.; ascis cylindraceis, apice rotundatis, 180-200 × 5, octosporis; sporidiis filiformibus, rectis, guttulis plurimis oleosis repletis, hyalinis, 120–150 × 1, parallele positis; paraphysibus filiformibus. 2698

Hab. ad culmos putridos Junci, Olching Bavariæ sup.

28. **Ophiobolus paludosus** (Feltg.) Sacc. et D. Sacc. *Leptosphæria paludosa* Feltg. Vorst. Pilz. Luxemb. 1901, Nachtr. II, p. 157 et III, pag. 209. — Peritheciis sparsis v. hinc inde approximatis, globosis, obtuse conico-papillatis, 500-600 μ. cr., subcarbonaceis, nigris, hyphulis brunneis, ramosis cinctis; ascis clavatis, breve stipitatis, apice rotundatis, 90–110 × 8-10, octosporis, filiformi-paraphysatis; sporidiis 2-4-stichis, cylindraceo-fusoideis, utrinque rotundatis, 60-75 × 3-4, tenuiter 7–10–12-septatis, rectis curvulisve, guttulatis, flavidis. 2699

Hab. in foliis Caricis vesicariæ et Phalaridis arundinaceæ. — Ad *Ophiobolum graminis* nutat.

29 **Ophiobolus graminis** Sacc. — Syll. II, pag. 349. — Pleniorem illustrationem hujus fungi perniciosi, cum iconibus, dederunt cl. Prillieux in Malad. des pl. II, p. 221 et Mac Alpine The Journal of Agriculture of Victoria 1903-1904, p. 410.

30. **Ophiobolus Festucæ** Tracy et Earle, Plantæ Bakerianæ, fasc. I, Fungi pag. 34. — Maculis nigris 1 mm. plerumque in pag. sup. foliorum insidentibus; peritheciis immersis, dein erumpentibus 200-250 μ. diam.; ascis late clavatis, breve stipitatis, 110-130 × 20-25; paraphysibus in modum spiræ sursum convolutis; sporidiis anguste fusiformibus, 40-50 × 3-4, guttulatis 2700

Hab. in foliis emortuis Festucæ spec., Chicken Creek, Colorado, Amer. bor.

OPHIOCHÆTA Sacc. — Syll. II p. 352, ut subgenus, IX p. 934, XI p. 352, XIV p. 616.

1. **Ophiochæta Inulæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 178. — Peritheciis gregariis superficialibus, hemisphæricis, 400-600 μ. diam., membranaceis, brunneis; hyphis brunneis, septatis, parce ramosis, 100–250 × 3-4, vestitis, ostiolo breve cylindraceo, glabro; ascis cylindraceis, apice rotundatis, longe stipitatis, 220–230 × 8, octosporis; sporidiis parallelis filiformibus, vulgo deorsum tenuatis, supra medium nodulosis, multiseptatis, hyalinis, intra ascum brunneolis, 120–136 × 2-2,5. 2701

   Hab. in caulibus siccis Inulæ Helenii, Luxemburg.

2. **Ophiochæta cereicola** Speg. Myc. argent. Ser. II, 1902, p. 73. — Peritheciis gregariis, primo tectis, dein subsuperficialibus minutis, 250–350 × 150-200, atris, crassiuscule umbonato-ostiolatis, deorsum hyphis paucis repentibus adspersis, sursum parce breviterque subpenicillato-pilosis; hyphis basalibus parce ramosis, septatis, 4–5 μ. cr., olivaceis; setulis ostiolorum continuis, fuligineis, apice pallidioribus, 50-60 × 6-8; ascis aparaphysatis, 250-300 × 14-15, apice obtuse rotundatis, basi breviter cuneato-pedicellatis; sporidiis ascorum longitudine 2,5 μ. crassis, utrinque obtusiusculis, filiformibus, primo multiguttulatis dein obsolete multiseptatis, non fragilibus. 2702

   Hab. ad spinas emortuas Cerei lamprochlori var. salinicolæ, La Plata in Argentina.

3. **Ophiochæta ramealis** (Feltg.) Sacc. et Syd. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 219, *Acanthostigma ramealis* Feltg. — Peritheciis sparsis, superficialibus, globosis, extus nigris septatis 86–92 × 4,5-6 vestitis et basi hyphis ramosis septatis 2,5–4 μ. cr. cinctis, membranaceis, globosis, brunneis v. atro-brunneis 100-300 μ. diam., minute papillatis; ascis cylindraceis, rectis curvulisve stipitiformi-attenuatis 105-145 × 4,5-5,5 filiformi-paraphysatis; sporidiis filiformibus, contortis, pluriseptato-guttulatis, 100-100 × 1, 5-2, utrinque v. uno apice acutulis, hyalinis. 2703

   Hab. in ramis corticatis Alni glutinosæ, Luxemburg. — *Ophiochætæ chætophoræ* affinis.

LINOSPORA Fuck. — Syll. II p. 354, IX p. 935, XI p. 352, XIV p. 618.

1. **Linospora Sibbaldiæ** E. Rostr. Norske Ascom. 1904, p. 27 (Vidensk. Skrift.) — Peritheciis amphigenis in pseudostromate clypeiformi solitarie nidulantibus, breve papillatis; ascis claviformibus, 65-75 × 7–9; sporidiis filiformibus, 50-60 μ. long.; paraphysibus filiformibus, longissimis, apice curvatis, numerosis. 2704

Hab. in foliis exsiccatis Sibbaldiæ procumbentis, Boiumbraeen Norvegiæ (E. Poulsson).

2. **Linospora arctica** Karst. — Syll. II, pag. 354. — var. **helvetica** 2705
Rehm in Œst. Bot. Zeitschr. 1904, pag. 85. — Stromatibus epiphyllis, sparsis, innatis, suborbicularibus, convexulis, nigrescentibus, 1 mm. diam. rostro minimo in medio stromatis prominente; ascis cylindraceis, apice rotundatis atque incrassatis, 150-160 × 10-12, bisporis; sporidiis acicularibus, utrinque subacutatis, haud curvatis, 1-cellularibus, guttulis minutissimis repletis, an demum septatis? hyalinis 100-110 × 5, parallele positis; paraphysibus nullis.

Hab. in foliis Salicis reticulatæ (?) ad moles glaciales Silvrette in Helvetia (F. Arnold).

3. **Linospora graminea** Rehm in Œst. Bot. Zeitschr. 1904, p. 86. — 2706
Peritheciis in macula orbiculari vel oblonga, nigrescente 1–1,5 mm. diam., 1-2 innata eamque hemisphærice elevantibus, globulosis, vix papillulatis, poro minutissimo pertusis, glabris, tenuiter membranaceis, ex hyphis 3 μ. cr parallelis, fuscidulis, contextis, ca. 180 μ. diam., 300 μ. altis; ascis cylindraceis, apice rotundatis ca. 300 × 5-6, octosporis; sporidiis æqualiter filiformibus, continuis, haud guttulatis, hyalinis asco æquilongis, 1 μ. cr., parallele positis; paraphysibus filiformibus 1-2 μ. cr.

Hab. ad culmos exsiccatos et dealbatos gramineos, juxta moles glaciales Sulden montis Ortler Tiroliæ.

OPHIOGNOMONIA Sacc. — Syll. I p. 419 (ut subgenus), XIV p. 613.

1. **Ophiognomonia lapponica** Vesterg. Micr. rarior. selecti, in Bot 2707
Not. 1902, p. 125. — Perithecis globosis, hypophyllis, innatis, epidermide tectis, confertis, 360-440 × 238-480; contextu parenchymatico brunneo, cellulis rotundatis 12 μ. diam.; ostiolis erumpentibus, cylindraceis v. fere conicis, rectis v. curvulis, poro pertusis, 200-256 × 72-112, nigro-brunneis; ascis elliptico-cylindraceis, rectis v. paullo curvulis, breve stipitatis, 88-100 × 6-8, octosporis; sporidiis raro rectis, ad S curvatis, truncatulis, pluri-guttulatis (usque ad 30) hyalinis 69-81 × 2.

Hab. in foliis siccis Betulæ odoratæ pr. Randijaur Lapponiæ.

CRYPTOSPORA Tul. — Syll. II p. 361, IX p. 939, XI p. 353.

1. **Cryptospora quercina** Feltg., Vorstud. Pilz. Luxemb. Nachtr. III, 2708
1903, p. 115. — Stromatibus e basi applanata 1–1,5 mm. lata,

ligno adnata, conoideis, disco 0,5 mm. lato, epidermidis laciniis cincto; peritheciis valsiformiter aggregatis 5-9 in quoque stromate, globoso-ovoideis, 200-300 μ. lat. carbonaceis, nigris, ostiolis minutis; ascis plerumque cylindraceis, 125-135 × 12-18, rarius oblongis usque 28 μ. diam.; paraphysibus non visis; sporidiis 2-3-stichis cylindricis, utrinque obtusis, rarius parum tenuatis, rectis curvulisve vulgo continuis, rarius medio 1-septatis, non constrictis, 38-42 × 5,5-7,5, hyalinis, intus granulosis.

Hab. in ramis corticatis putridis Quercus, Luxemburg.

Fam. 3. Hypocreaceæ De Not.

Cl. v. Höhnel in Œsterr. bot. Zeitschr. 190, pag. 54 contendit plura genera hucusque inter *Valsaceas* v. *Sphæriaceas* locata, ut ***Endothia, Sillia, Cryptosporellæ*** spp., *Myrmœcium* Sacc. [1]), *Aplacodina* Ruhl. (= *Apiospora* [2]) etc. ad *Hypocreaceas* referenda esse. Non negarem eorum perithecii contextum molliusculum et subolivaceum interdum se præbere et stroma nonnumquam læte coloratum, sed ubi v. Höhnel observavisset contextum subsimilem in pluribus *Valsæ, Diaporthes, Læstadiæ, Sphærellæ* etc. speciebus adesse, certe persuasum se habuisset de necessitate ordinem totum non subvertendi. Quoad stroma e. g. *Endothiæ, Silliæ* etc., quamquam læte coloratum, minime tamen est carnosum. « Natura non facit saltus » et certe *Sphæriaceæ* et *Valsaceæ* gradibus intermediis ad *Hypocreaceas* sensim abeunt; sed non est hæc ratio ut raptim et inconsiderate mutemus quæ magistri non sine studio statuerunt.

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[1]) Cl. Lindau (Pflanzenf. Pilze I, p. 470 et 478) omnino inconsulto tribuit *Myrmœcio* meo nomen *Myrmœciella, Valsariæ* Ces. et De Not. nomen *Myrmœcium* et *Hercosporæ* Tul. nomen *Valsaria*. Revera Ces. et De Not. condidederunt gen. *Valsariam* anno 1862 pro *Valsaria insitiva* et aliis phæodidymis, quibus improprie anno 1863 addidit De Notaris *Valsam Tiliæ*, cui nomen *Hercospora* Tul. recte competit. Abrogato nomine *Myrmœcium* pro *Valsaria* typica, primum manere debet pro typo hyalodidymo a me condito. Quomodo cl. v. Höhnel huic postremo (acervulis extus nigerrimis perithecii contextu fuligineo prædito!) adscribere possit suam *Myrmœciellam Caraganæ* (cf. *Cryphonectria*) omnino hypocreaceam, non liquet.

[2]) Cl. Jaczewski jam anno 1896 (Bull. Herv. Boiss. pag. 663) *Apiosporam* (Aplacodinam) *chondrosporam* novo suo generi *Pseudomassariæ* accensuit, sed sporidia talia descripsit (mucosa, appendiculata!), ut dubitari liceat an de vera *Sphæria chondrospora* Ces. agat. Cfr. supra pag. 658.

Sect. 1. Allantosporæ.

ALLANTONECTRIA Earle — Syll. XVI p. 1140.

1. **Allantonectria Yuccæ** Earle Plantæ Bakerianæ, fasc. II, Fungi p. 12. — Peritheciis 12-20 in stromate congestis; crusta stromatica erumpente sparsa v. subconfluente, circ. 1 mm. lata; peritheciis rubris, lucentibus, levibus vel leniter rugosulis, collabentibus, 100-125 μ. diam: ascis octosporis, clavatis, minutis, aparaphysatis?, 20-30 × 3-4; sporidiis distichis v. irregulariter dispositis. 4-5 × 0.8-1, hyalinis, allantoideis. 2709

Hab. in foliis emortuis Yuccæ spec., Hermosa, South Colorado Amer. bor.

Sect. 2. Hyalosporæ.

NECTRIELLA Sacc. — Syll. II p 448, IX p. 941, XI p. 354, XIV p. 621, XVI p. 559.

1. **Nectriella Cacti** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — Peritheciis gregariis pallide sanguineo-rubris molliusculis, ovatis 200 × 110 μ.; ascis sublanceolatis 45-55 × 4; paraphysibus non bene distinctis; sporidiis distichis, oblongis, continuis, 5-6 × 1,5. 2710

Hab. in Opuntia Ficu-indica, Alabama, Amer. — A *Nectria sanguinea* et *N. Opuntiæ,* cui forsan affinis, differt notis datis.

SPHÆROSTILBELLA P. Henn. in Engl. bot. Jahrb. 1901, p. 40 (Etym *Sphærostilbe,* cujus est analogum). — Stromata conidiophora elongata, capitata, conidiis subglobosis. Perithecia ascophora iilis connexa, globosa v. hemisphærica læte colorata, nectriacea. Asci octospori. Sporidia ellipsoideo-oblonga, continua, hyalina. — Est genus parallelum *Sphærostilbes,* sed amerosporum. In Tab. comp. (vol. XIV, p. 22) occupabit n. 42 *bis* inter *Hypocreaceas.*

1. **Sphærostilbella lutea** P. Henn. in Engl. Bot. Jahrb. 1901, p. 40. — Peritheciis gregariis interdum confluentibus, in villo byssino albido nidulantibus, flavo-ochraceis, farinaceis, hemisphæricis, dein collabentibus, obscurius papillatis, ca. 200 μ. diam.; contextu cellulis pseudoparenchymaticis, rotundato-angulatis, flavo-brunneolis; ascis sublinearibus, vertice obtusis, basi paullo attenuatis, octosporis, 2711

60-80 × 3,5; sporidiis monostichis, ellipsoideis, obtusiusculis, continuis, 4-5,5 × 3-3,5 hyalinis; stromate conidiophoro filiformi, rigido, flexuoso, flavo 1,5-3 mm. longo, pedicello 30-50 μ. cr.; capitulis subflexuosis ca. 150 μ. diam.; conidiis subglobosis, levibus 3-3,5. hyalino-flavidulis.

Hab. ad truncos putres, Kamerun Africæ occid.

CHILONECTRIA Sacc. — Syll. II p. 453, IX p. 945, XIV p. 624.

1. **Chilonectria michailowskojensis** P. Henn. in Hedw. 1904, p. 69. 2712
— Peritheciis cæspitose erumpentibus, subglobosis, collabascentibus, subpezizoideis, levibus, coccineis 250-300 μ.; contextus cellulis rotundato-polyhedricis, coccineis; ascis clavatis, obtuse rotundatis. aparaphysatis, polysporis, 60-100 × 10-13; sporidiis oblongis ellipsoideis, obtusis, hyalinis, continuis, 3-4 × 1,5-2; conidiis sub epidermide fissa erumpentibus, oblongis, utrinque obtuse rotundatis, 2-guttulatis, hyalinis 8-12 × 4-4,5.

Hab. in ramis dejectis Fraxini excelsioris, Michailowskoje in ditione Mosquensi Rossiæ.

2. **Chilonectria romana** Sacc. in Atti congr. bot. Palermo 1902, p. 54. 2713
— Peritheciis in soros laxe gregarios, mox erumpentes approximatis, in quoque soro compluribus (12-20), peridermio laciniato et relaxato cinctis, globosis, saturate rubris, glabris, 300-400 μ. d., ostiolo impresso latiusculo, demum sæpe umbilicato; contextu celluloso dilute rubro-rufescente; ascis clavatis, apice rotundatis, sensim tenuato-stipitatis, 80 × 12-14, aparaphysatis, 6-8-sporis et polysporis; sporidiis biformibus, octonis cylindricis, utrinque rotundatis, 50-60 × 4-5, nunc creberrime, nunc laxius multiseptatis, intermixtis sporidiis innumeris allantoideis, 4-5 × 1, hyalinis.

Hab. ad ramulos emortuos Quercus Ilicis, Villa Doria Romæ. — Affinis videtur *Chilon. scolecosporæ* Bref. et Tav. (Pflanzenf. Pilze I, p. 360 cum ic.) sed sporidia majora, in quoque asco suboctona nec tantum bina.

ELEUTHEROMYCES Fuck. — Syll. II p. 455, IX p. 942.

1. **Eleutheromyces subulatus** (Tode) Fuck. — Syll. II, p. 455. Observante cl. v. Höhnel in Fragmente mykol. 1903, p. 36, species hæc secundum exempl. Fuckeliana esset forma pycnidica, quasi *Sphæronæmella* sporulis biciliatis, sed cum et ego ipse statum etiam ascophorum reperissem (cfr. Michelia I p. 50), res videtur ulterius inquirenda.

PECKIELLA Sacc. — Syll. II p. 472, IX p. 944, XVI p. 560.

1. **Peckiella minima** Sacc. et Bres. Not. myc. in Annales Myc. 1903, n. 1, p. 25. — Peritheciis gregariis, *Corticii* hymenio superficialiter immersis et vertice erumpentibus, subiculo proprio subnullo cinctis, globulosis, exiguis 80–100 μ. diam., sordide roseis, ostiolo minuto vix papillato pertusis; peritheciis contextu tenui, dilute olivaceo, periphysibus subhyalinis; ascis cylindraceis, apice rotundatis, subsessilibus, 28–32 × 3–3,5, aparaphysatis, octosporis; sporidiis monostichis, subsphæricis v. cuboideo-sphæricis, 4 × 3, hyalinis, minutissime 1-2-guttulatis. 2714

   Hab. in hymenio Corticii straminei Bres. ad ramos Alni Val di Sole (Trento). — Minutie omnium partium, ascis angustissimis, sporidiis octonis globosis etc. mox dignoscenda species.

POLYSTIGMA Pers. — Syll. II p. 458, IX p. 945, XI p. 354, XIV p. 625.

1. **Polystigma pusillum** Syd. Ann. Mycol. 1904, p. 167. — Stromatibus amphigenis, maculis flavescentibus indeterminatis v. obsoletis insidentibus, innatis, laxe vel circulariter gregariis, minutis, rotundatis v. irregularibus, usque 1 mm. longis, carneo-ochraceis, tandem succineo-brunneolis; peritheciis omnino immersis, paucis (1–5, plerumque 1–3) in quoque stromate, ostiolo non vel parum emergente; ascis cylindraceo-clavatis, apice rotundatis, brevissime stipitatis, 45–66 × 10–15, octosporis; sporidiis mono-distichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 10–12 × 3½–5. 2715

   Hab. in foliis vivis Andiræ excelsæ, Guatemala, Dep. Escuintée (J. Donnel-Smith).

MŒLLERIELLA Bres. — Syll. XIV p. 626.

1. **Mœlleriella nutans** Rick, Ann. Mycol. 1904, p. 405, cum icone. — Stromate pulvinato hemisphærico, usque 2 cm. diam., matrici arcte adnato, carnoso-duriusculo, intus albo, extus ruguloso, ostiolis obscurioribus verruculoso; peritheciis peripheriis, stipatis oblongis 1 mm. alt.; ascis 300 × 10 et medio usque 20 μ. lat. polysporis; sporidiis primo filiformibus, dein in triplicem formam abeuntibus aut filiformibus, articulis jugiter cohærentibus aut articulis demum separatis, 10–12 × 4, obtuse rectangularibus, 1-guttulatis, seriatis aut jam primitus in articulos sporomorphos ovoideos, obtusos v. apiculatos 14 × 5, pluriguttulatos separatis; paraphysibus filiformibus. 2716

Hab. in culmis adhuc vivis Arundinariæ, Sao Leopoldo Brasiliæ.

Sect. 3. Phæosporæ.

SPHÆRODERMA Fuck. II p. 459, IX p. 949, XI p. 355, XIV p. 627, XV p. 562.

1. **Sphæroderma aureum** (Mc. Alp.) Sacc. et D. Sacc. *Rosellinia aurea* Mc. Alp. Fung. Stone-fr. tr. diseas., Melb. 1902, p. 102, f. 101, 102, 314. — Peritheciis atro-brunneis, superficialibus, gregariis vel sparsis, 2-3 congestis, globosis, membranaceis, textura ex hyphis hyalinis composita, ostiolo subrotundo ornatis, 300-400 μ. diam.; ascis obovatis, brevi stipitatis, octosporis, 45 × 28; paraphysibus hyalinis, filiformibus, asco subæquilongis; sporidiis distichis, initio hyalinis, dein olivaceis, tandem fuligineo-brunneis, navicularibus, apiculo brevi, obtuso, hyalino utrinque ornatis, 24-26 × 13-14. 2717

   Hab. in foliis Pruni domesticæ et Piri Mali, Victoria Australiæ. — Culta etiam in capsula vitrea.

2. **Sphæroderma Helleri** (Earle) Sacc. et D. Sacc. *Melanospora Helleri* Earle in Muhlenbergia 1901, p. 13. — Peritheciis superficialibus dense aggregatis 3-4 usque 20, hypostromate obsoleto, cortice insculpto insertis, 500-600 μ. diam., profunde collapsis, griseis, extus verruculis applanatis, demum deciduis conspersis perithecii contextu parenchymatico parvi-celluloso, molli, brunneo; ostiolo papillato, pertuso, pilis tenuissimis hyalinis vestito; ascis oblongis, 100 × 30, mox evanescentibus; paraphysibus indistinctis; sporidiis octonis subinde quaternis, distichis, ovoideis, continuis, hyalinis, denique opace nigricantibus, strato mucoso hyalino plus minus distincto obvolutis, 25-28 × 18-20, demum expulsis et matricem fœdantibus. 2718

   Hab. in cortice emortuo arborum in silvaticis Santurce, Portorico. — Ad subgenus *Vittadinula* spectare videtur.

MELANOSPORA Corda — Syll. II p. 461, IX p. 950, XI p. 356, XIV p. 626, XVI p. 563.

1. **Melanospora Rubi** Rehm in Œst. Bot. Zeitschr. 1904, p. 86. — Peritheciis solitariis vel 5 arcte congregatis, sessilibus, lageniformibus 150 μ. alt., 90 μ. latis, in rostrum cylindricum apice obtusum et fimbriatum, 300 μ. long., 90 μ. lat., prosenchymatice ex hyphis 2719

contortis 4 μ. lat., contextum, fuscidulum elongatis, pilis acutis simplicibus, rectis, hyalinis, 240 × 12, vestitis, et indumento albido ex hyphis hyalinis 4 μ. lat. septatis formato obductis, præsertim ad basim subpellucidis, flavidulis, mollibus, parenchymatice contextis; ascis subglobosis, mox evanidis 4-8-sporis, ca. 15 μ. d; sporidiis primitus hyalinis, dein fuscidulis, glabris, discoideo-orbicularibus, mox conidiis 1-2 μ. d., minimis, hyalinis obsessis, ca. 6 μ. diam.; paraphysibus nullis.

Hab. in foliis putridis Rubi fruticosi prope Neufriendenheim, Monachii, Bavariæ sup.

2. **Melanospora discospora** Mass. et Salm. Coproph. fungi I, p. 352, 2720
fig. 36-38 — Peritheciis sparsis, raro subgregariis 110-130 μ. diam., 180 × 200 μ. altis subimmersis, glabris, subglobosis, flavicantibus, membranaceis, contextu parenchymatico molli tenui e cellulis irregularibus circiter 10 μ. latis composito, rostro breve cylindraceo recto obtuso 60-80 μ. longo, apicem versus subhyalino; ascis oblongis circ. 35 × 14 octosporis, citissime diffluentibus; sporidiis discoideis a fronte orbicularibus 7-9 μ. diam., a latere ellipticis 4 μ. latis, atro-brunneis, ad rostri apicem singulatim eructatis et tandem massam subglobosam nigram formantibus.

Hab. in fimo Capræ sinaiticæ et Ovis Burrhel, Kew Britanniæ.

Sect. 4. Hyalodidymæ.

CHARONECTRIA Sacc. — Syll. II p. 466, IX p. 953, XVI p. 1140.

1. **Charonectria pedicularis** Tracy et Earle in Plantæ Bakerianæ 2721
fasc I, Fungi p. 27. — Peritheciis sparsis vel subgregariis, prominentibus, epidermide velatis, dein subdepressis, rubro-roseis, levibus, mollibus 400 μ. diam., ostiolo erumpentibus; ascis numerosis, cylindraceis, breve pedicellatis, aparaphysatis (?) circ. 100 × 8; sporidiis oblique monostichis, hyalinis, minute guttulatis, 1-septatis, constricto-ovalibus, utrinque acutis, 17 × 4.

Hab. in caulibus emortuis Pedicularis crenulatæ, Bear Creek Divide, Colorado Amer. bor.

2. **Charonectria Sambuci** de Höhnel in Hedw. 1903, pag. (187). — 2722
— Peritheciis globosis, 100-300 μ. latis, immersis, sub epidermide nidulantibus, hanc verruciforme vel semiglobose elevantibus et ostiolo applanato-disciformi ca. 120 μ. lat. et 60 μ. alto perforan-

tibus, hyalinis vel pallide lutescentibus, disco paulo intensius luteolo, intus roseo-pellucidis v. singulis v. 2-5 approximatis, sæpe confluentibus, glabris, papilla solum in margine plerumque pilis hyalinis, rigidis, acutis v. obtusis, continuis, apice hinc inde breramosis, 10-25 × 2-4 obtecta; ascis paraphysibusque citissime in mucilaginem diffluentibus; sporidiis hyalinis, oblongo-fusiformibus, plerumque bicellularibus, sed non raro continuis, in medio paulum v. haud constrictis, 14 × 4-5, haud raro tamen etiam minoribus.

Hab. in ramis tenuibus siccis Sambuci nigræ in Jablaniza Herzegovinæ. — Peritheciorum ostiolum planum, parvum; contextus peritheciorum e cellulis parvis, paulum gelatinosis, filiformibus formatus.

3. **Charonectria Umbelliferarum** de Höhnel in Hedw. 1903, p. (187). 2723
— Peritheciis sub epidermide immersis, 100-250 μ. diam. globosis, ostiolo 40-70 μ. lat., valde applanato-conico, pallide carneis, tunica tenui, e cellulis minutis formata; ascis clavatis, breviter stipitatis, 65 × 9; paraphysibus numerosis, filiformibus, 2 μ. crassis, ut ascis mox in mucilaginem deliquescentibus; sporidiis distichis, in asco oblongis v. fusiformibus, hyalinis, bicellularibus v. rectis v. leviter curvatis, in medio non constrictis, 4-guttulatis, 14-18 × 4-5.

Hab. ad caules siccos Umbelliferarum, Tumpener See in valle Œtzthal Tiroliæ (DE HÖHNEL).

4. **Charonectria biparasitica** de Höhnel in Ann. Myc. 1903, I, p. 395. 2724
— In peritheciis vacuis ex vetustis stromatibus *Eutypæ flavovirescentis* parasitica, omnino immersa; peritheciis tenerrimis, candidis, globulosis 250 μ. latis, ostiolo minuto, applanato instructis; ascis tenuibus, cylindraceis, aparaphysatis 80-100 × 8; sporidiis octonis, monostichis, hyalinis, ellipticis, medio septatis, biguttulatis, tenuiter tunicatis, 12-16 × 5,5-6,5.

Hab. in peritheciis vetustis, vacuis Valsæ flavovirescentis, in silva Kubany Bœmiæ.

CRYPHONECTRIA Sacc. — Syll. II, p. 507 (1883) ut subgen. (Etym. *cryphæos* occultus et *Nectria*) *Hypocreopsidis* sp. Starb. *Myrmæciella* v. Höhn., nec Lind. — Perithecia *Nectriæ*, stromate pulvinato v. discoideo, carnoso, sæpius initio tecto immersa v. semiimmersa. Asci et sporidia *Nectriæ*. Status conidiophorus *Patellinæ* species sistens. Genus hinc *Hypocreopsidi* illinc *Clintoniellæ* affine et cum eis sedulo comparandum.

1. **Cryphonectria gyrosa** (B. et Br.) Sacc. *Nectria gyrosa* B. et Br. — Syll. II, p. 455.

2. **Cryphonectria moriformis** (Starb.) Sacc. *Hypocreopsis? moriformis* Starb. — Syll. XXI, p. 590.

3. **Cryphonectria Caraganæ** (v. Höhn.) Sacc. *Myrmœciella Caraganæ* v. Höhn. Œst. bot. Zeitschr. 1905, p. 53. — Stromatibus extus miniato-rubris dein brunneis et etiam nigricantibus, erumpentibus, laciniis peridermaticis cinctis, pulvinatis e rotundato irregularibus, 2-9 mm. long. 2-4 mm. lat., crassis, levibus, dein ob perithecia tenuiter verrucosis, denique colliculosis, carnosis, dein siccis suberosis, intus flavidis, e cellulis parenchymaticis 5-20 μ. diam. conflatis, cellulis externis minoribus; peritheciis numerosis, confertis, immersis, subgloboso-ovoideis, 300-315 × 200-300, vix prominulis, contextu carnoso, læte flavo, 40 μ. cr.; ostiolis latiusculo papillatis poro exiguo; nucleo roseo; ascis sessilibus, tenuibus, 65-70 × 10-12, aparaphysatis, 8-sporis; sporidiis mono-distichis, oblongis utrinque obtusulis, rectis v. curvulis, 1-septatis, vix constrictis, levibus, minute guttulatis, 14-20 × 5-6,5, hyalinis, coacervatis roseis. 2725

Hab. in ramis Caraganæ arborescentis in horto bot. Vindobonensi Austriæ. — Status conidiophorus formam *Patellinæ* sistens, verruciformis: basidiis 13-15 × 1; conidiis 3-4 × 1, roseolis.

4. **Cryphonectria abscondita** Sacc. *Nectria abscondita* Sacc. Myc. Ven. Spec. p. 123, tab. XII, f. 42-45. — Syll. II, p. 507.

5. **Cryphonectria variicolor** (Fuck.) Sacc. — Syll. II, p. 507. — Cl. Winter forte non immerito ad Hyphonectriam retulit.

6. **Cryphonectria xanthostroma** Penz. et Sacc. — Syll. XIV, p. 639.

NECTRIA Fr. — Syll. II p. 479, IX p. 955, XI p. 357, XIV p. 628, XVI p. 565.

I. *Eu-Nectria* Sacc.

1. **Nectria coccidophthora** A. Zimm. Centralbl. f. Bakter. u. Parass. II, Abth. VII, 1901, p. 872, fig. 1. — Peritheciis ad basim sporodochiorum conidiophororum gregatim nascentibus vel seorsim subsparsis, globoso-conoideis, sanguineis, ostiolo papillato dilutiore præditis, 230-280 μ. diam.; ascis octosporis, 100 μ. longis; sporidiis ellipsoideis, utrinque rotundatis, 1-septatis, non constrictis, intus granulosis, hyalinis, 17-20 × 7-8; sporodochiis conidiophoris 2726

cinnabarinis, conoideis, totis 0,7-0,8 mm. alt ; conidiis pilis (paraphysibus?) cinctis tereti-fusoideis, prælongis, 7-9-cellularibus, leviter curvis, 110-120 × 6, intus granulosis, hyalinis.

Hab. in Mytilaspidis sp. ad Coffeam arabicam et in Parlatoria Zizyphi ad Citrum Buitenzorg Javæ. — Affinis *N. aurantiicolæ* sed satis diversa.

2. **Nectria Massei** Sacc. et D. Sacc. *N. verrucosa* Massee in Kew Bull. 1901, p. 166, nec (Schw.) Sacc. — Peritheciis in pulvinulos hemisphæricos 2-3 mm. diam., confertis, globosis, incarnatis, verrucosis, ostiolo papillato; ascis cylindraceis, octosporis, aparaphysatis, 60 × 8; sporidiis ellipticis, utrinque rotundatis, medio 1-septatis vix constrictis, loculis 1-guttulatis æqualibus, hyalinis, levibus, 10 × 6. 2727

Hab. in ligno emortuo, in horto botanico Aburi, Gold Coast Africæ occident. (Johnson).

3. **Nectria fructicola** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, p. 182. — Peritheciis dense aggregatis stromateque suffultis, globosis, vix papillatis, glabris, ochraceo-flavis 180 μ. diam.; ascis 8-sporis; sporidiis oblongis, 2-cellularibus, medio distincte constrictis, hyalinis, 10-12 × 3,5. 2728

Hab. in fructibus atratis Coffeæ libericæ, Buitenzorg Javæ.

4. **Nectria compressa** Starb. in Arkiv för botan. 1904, Band. 2, p. 13, fig. 24. — Peritheciis stromate subcorticali læte luteo-miniato insidentibus, in acervulos plerumque orbiculares pulvinatos, 1-3 mm. diam. erumpentibus, superficialibus, dense aggregatis sed discretis, madore ovato-conoideis, siccis e latere compressis v. varie contractis, non vel vix collabentibus, coccineo-rubellis, minute sed manifeste obscurius ostiolatis, glabris, 100-150 μ. diam., usque 250 μ. altis, contextu carnosulo, hypocreaceo; ascis cylindraceo-clavatis, breve pedicellatis, apice rotundatis, 55-65 × 9-10, paraphysibus diffluentibus; sporidiis octonis distichis vel oblique monostichis, 1-septatis, ellipsoideis, hyalinis, 10-16 × 6-7,5. 2729

Hab. in ramis corticatis, San Antonio pr Asuncion Paraguay.

5. **Nectria Cinchonæ** A. Zimm. Berichte üb. Land u Forstw. Deutsch. Afrika, 1904, p. 32, tab. III, fig. 17. — Peritheciis compluribus in stromate communi confertis, rufo-brunneis, 300 μ. altis et 200 μ. lat., basi pilis albido-flavis, pluri-cellularibus, apice inflatulis, rugulosis cinctis; ostiolo parum prominente ; ascis octosporis; sporidiis oblongis, utrinque rotundatis 10-13 × 4, uniseptatis, non constrictis, hyalinis, membrana tandem flavida longitrorsum striata. 2730

Hab. in ramis Cinchonæ succirubræ et C. Ledgerianæ in horto Amani Afr. orient. — Adest initio stat. conidioph. cæspitulosus; conidiis bicellularibus, hyalinis, 7–10 × 2–3, basidiis cylindraceis stipitatis suffultis.

6. **Nectria camerunensis** Appel et Strunk, Einig. Kamer. Theobr. Pilze, p. 9, fig. 11 (Centralbl. Bakter. 1903). — Peritheciis hypostromate compacto, carnoso, pulvinato, flavido suffultis, confertis, globoso-ovoideis, 0,2–0,3 mm. diam.; ascis octosporis, clavatis, deorsum tenuato-stipitatis, 60–75 × 12; sporidiis fusoideis, utrinque acutis, rectiusculis, 1-septatis, non constrictis, distichis v. oblique monostichis, 12–15 × 3–4, obsolete guttulatis. 2731

Hab. in fructibus emortuis Theobromæ Cacao, Victoria Kamerun Africæ occid. (Strunk).

7. **Nectria Bonanseana** Sacc. sp. n. — Stromatibus in maculis epiphyllis flavido-rufescentibus suborbicularibus 5–7 mm. latis circinatim dispositis, verruciformibus erumpentibus vix $^1/_2$ mm. diam., centralibus magis prominentibus, atro-rufis; peritheciis perexiguis, globulosis, numerosis, 20–30 in quoque stromate, semiprominentibus, rugulosis, nigricantibus, 100–160 μ. diam., contextu superne crassiore, celluloso, atro-olivaceo; ascis e fundo perithecii radiantibus, fusiformibus, subsessilibus, 90–96 × 8–9, apice acutiusculis, octosporis; paraphysibus parum conspicuis; sporidiis distichis fusoideis 1-septatis, utrinque acutulis, 16–17 × 3,2–3,5, hyalinis, eguttatis. 2732

Hab. in foliis morientibus vel emortuis Agaves sp. Mexico (Doct. Silvius Bonansea). — A speciebus mihi notis omnino distincta.

8. **Nectria blumenaviensis** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 3. — Peritheciis botryose cæspitosis, luteis, subgloboso-ovoideis, apice papillatis, levibus, glabris, 190–210; ascis cylindraceo-clavatis, vertice rotundatis, ad basim attenuatis, octosporis, 35–45 × 4–5, paraphysibus obsoletis; sporidiis oblique monostichis, ellipsoideis utrinque obtusis, bi-guttulatis, dein 1-septatis, haud constrictis, hyalinis, levibus, 8–11 × 3,5–4. 2733

Hab. in ramis corticatis, St. Catharina Brasiliæ austr.

9. **Nectria cinnabarina** (Tode) Fr. — Syll. II, p. 479. — var. **oligocarpa** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 304. — A typo recedit peritheciis non collabascentibus, levibus nec verruculosis, in quoque cæspitulo paucis, dilute coloratis, 500–600 μ. diam.; ascis 80 × 8; sporidiis 16–22 × 5–6. 2734

Hab. in ramis Spirææ Douglasii, Luxemburg.

II. *Zimmermannia* Sacc. Ostiolum coronato-dentatum.

10. **Nectria peristomata** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, pag. 478, cum icon. — Peritheciis sparsis amphigenis, stromate carentibus, globosis, brunneis 180 μ. diam., vertice dentibus (10-15) patentibus obscurioribus, usque 80 μ. longis coronatis, ostiolo impresso pertuso; ascis octosporis 36-40 μ. longis; sporidiis bicellularibus oblongis, constricto 1-septatis, curvulis, utrinque obtusulis, vulgo 4-guttulatis, 14 ⨯ 2-3, hyalinis. 2735

Hab. in foliis emortuis Vanillæ cultæ, Buitenzorg in insula Java. — Ob coronam dentium circa ostiolum, novum subgenus est condendum et in honorem auctoris *Zimmermannia* vocandum.

III. *Dialonectria* Sacc.

11. **Nectria sanguinea** (Sibth.) Fr. — Syll. II, pag. 493. — var. **corallina** Bres. in Strass. Pilzfl. Sonntagb. IV, p. 414, in Verhandl. zool. bot. Gesell. Wien. 1901. — Sacc. Syll. XVI, pag. 1140 (nomen). — Peritheciis superficialibus, gregariis v. sparsis, ovoideis, papillatis, non collabentibus, vivide corallinis, 200-300 ⨯ 230-330 μ., contextu subparenchymatico; ascis cylindraceis octosporis 80-90 ⨯ 7-8; paraphysibus teneris, ramosis 2,5 μ. latis; sporidiis subfusoideis vel subellipticis, uniseptatis, ad septum non vel vix constrictis 11-15 ⨯ 4-5. 2736

Hab. in ligno fagineo, Austria inf. — A typo differt colore et sporidiis majoribus.

12. **Nectria umbilicata** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 3. — Peritheciis sparsis vel subaggregatis, ovoideo-subglobosis, purpureis, levibus ca. 400 μ. diam., apice obscurius annulatis, umbilicatis, minute papillatis; ascis cylindraceo-clavatis, apice rotundatis, octosporis, 70-90 ⨯ 6-7; sporidiis ellipsoideis, utrinque obtusis, bi-guttulatis, intus flavidis, 1-septatis, haud constrictis, 10-13 ⨯ 4-5, levibus. 2737

Hab. in truncis, St. Catharina Brasiliæ austr.

13. **Nectria cyanostoma** Sacc. et Flag. in Atti congr. bot. Palermo 1902, p. 53, cum tab. — Peritheciis gregariis v. subsparsis, globoso-conoideis, superficialibus, 200-250 μ. diam., glabris, inferne usque fere ad ostiolum roseis, superne cum ostiolo obtuse papillato atro-cyaneis; contextu perithecii parenchymatico ad ostiolum prosenchymatico amœne discolore; ascis cylindraceis, obtusis, deorsum 2738

breve tenuatis, aparaphysatis, octosporis 85-90 × 7-8; sporidiis rectis v. oblique monostichis, ovoideo-oblongis, utrinque rotundatis, constricto-1-septatis, 2-4-guttulatis, 14-16 × 5,5-6, hyalinis.

Hab. in cortice sicco ramorum Buxi sempervirentis, St. Romain prope Rigny Galliæ. — Pulchella species, inter *Liseam Buxi* et *Nectriam Desmazierii* media (an hybrida?). Cum ipsa *N. cyanostoma,* etsi rarius, occurrit *Fusarii* species (conid. falcatis 55-60 × 5-6, 5-7-septatis) affinis *F. buxicolo* Sacc. et statum ejus conidicum verisimiliter sistens. Cfr. Syll. II, p. 518.

14. **Nectria tricolor** de Höhnel Fragmente zur Mykol. 1903, p. 5. — 2739
Stromate nullo; peritheciis nunc sparsis, nunc usque 3 vel 5 in acervulos minutos aggregatis, sphæroideis, vertice depressis, 400 μ. latis, supra aurantio-rubris, medio luteis, infra brunneis; tunica parenchymatica e cellulis majusculis, usque 35 μ. latis, extus vel squamulose vel verruciforme prominentibus formata; ascis cylindraceis, tenuibus, 90 × 5; paraphysibus numerosis, filiformibus, 2 μ. crassis; sporidiis monostichis, levibus, hyalinis, didymis, medio non constrictis, utrinque leviter attenuatis, 10-11 × 3-3,5.

Hab. in ligno nudo putrido Abietis pectinatæ, prope Pressbaum Austriæ inf.

15. **Nectria striatospora** A. Zimm. in Centr. f. Bakter. Paras. 1901, 2740
II, Abt. pag. 105, fig. 6. — Peritheciis superficialibus, globosis, gregariis, sanguineis, ostiolo papillato, nigricante, 0,4 mm. long., 0,3 mm. cr.; ascis octosporis, 100 μ. long.; sporidiis bicellularibus, oblongo-ellipsoideis, utrinque obtusulis, medio leviter constrictis, 23 × 9, membrana longitudinaliter striolata, (manifestissime in sporidiis vacuis v. germinantibus.)

Hab. in cortice trunci Theobromæ Cacao Buitenzorg, ins. Java.

16. **Nectria gigantospora** Zimm. in Bull. de l'Inst. Bot. de Buitenz. 2741
1901, p. 15. — Maculis brunneis, obscurius marginatis; peritheciis amphigenis, sparsis, initio in margine macularum insidentibus, rotundis, ostiolo donatis, 300 × 200, rubro-cinnabarinis; ascis clavatis octosporis; sporidiis hyalinis 1-septatis, constrictis, utrinque truncatis, curvulis, 50 × 9.

Hab. in foliis Fici elasticæ, Buitenzorg, in insula Java.

17. **Nectria galligena** Bres. in Strasser Pilzfl. Sonntaglb. IV, p. 413, 2742
in Verhandl. zool. bot. Gesell. Wien. 1901. — Peritheciis superficialibus, dense gregariis, adpressis, læte rubris, obovatis, papillatis, haud collabentibus, 200-300 μ. latis, contextu subparenchy-

matico; ascis cylindraceis 100-110 × 10; paraphysibus filiformibus, ramosis; sporidiis hyalinis, oblongis, uniseptatis, ad septum subconstrictis, 18-20 × 7-8.

Hab. in gallis ad folia Salicis purpureæ, Austria inf. — *Nectriæ sanguineæ* Sibth. affinis, a qua præcipue ascis et sporidiis majoribus distincta.

18. **Nectria dacrymycelloides** Rehm in Hedw. 1903, pag. (175). — 2743
Peritheciis gregariis, initio innatis, dein emergentibus, sessilibus, globoso-conoideis, ostiolo minutissimo præditis, dilute aurantiaco-luteolis, in sicco conoideis, vix collabentibus, obscurioribus, brunneis 210 μ. diam.; excipulo parenchymatico, flavido-brunneolo, glabro, basi hyphis nonnullis hyalinis obsesso; ascis clavatis 60 × 12, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, medio septatis, vix constrictis, hyalinis, guttis oleosis fere carentibus, 18-20 × 4,5-5, distichis.

Hab. in caulibus putrescentibus Senecionis Fuchsii, Utterwalder Grund Saxoniæ (Krieger).

19. **Nectria Behnickiana** P. Henn. Hedw. 1905, XLIV, p. 172 — 2744
Beritheciis corticolis, sparsis vel subaggregatis, ovoideis, apice subpapillatis, coccineis, ca. 180-220 μ. diam., hyphis, hyalinis, flexuosis ca. 2 μ. crassis vestitis; ascis clavatis, obtusis, 8-sporis, 60-70 × 6-10; sporidiis oblique monostichis vel distichis, ellipsoideis vel ovoideis, hyalinis vel flavidulis, medio 1-septatis constrictulis, 10-13 × 4½-6; stromatibus conidiophoris pulvinatis, farinosis, pallidis; conidiis ellipsoideis, obtusis, continuis, hyalinis, 4-5 × 2-2½.

Hab. in ramis corticatis emortuis Coffeæ arabicæ cum Orchidea connatis, ex Brasilia, in horto botanico Berolinensi.

20. **Nectria coffeicola** Zimm. in Centr. f. Bakter. Parass. II Abt. 2745
1901, n. 3, p. 103, fig. 4. — Peritheciis late confertis, stromate nullo suffultis, sessilibus, globosis, 0,3 mm. diam., 0,4 mm. alto, initio cinnabarinis, demum brunneolis, ostiolo prominulo, achromo vel denique cyanescente; ascis cylindraceo-clavatis, octosporis; 70 μ. long.; sporidiis ellipsoideis, 1-septatis, non constrictis, utrinque obtusis, 10-13 × 5-6.

Hab. in truncis annosis Coffeæ arabicæ nec non Meliæ et Theobromæ in Java et Cinchonæ sp. in Amani Afr. or. — Prope st. ascophorum evolvuntur status conidiophori: alter conidiis tereti-falcatis continuis capitulatis, 11-30 × 3-4, alter conidiis fusariiformibus, 4-6-cellularibus, 40-50 × 5 (hic postremus tantum probabilis). A *N. saccharina* certe diversa. — Var. **ochroleuca**

Zimm. l. c. p. 105. — A typo differt colore læte ochroleuco et peritheciis minoribus. In ramis Coffeæ emortuis in Java.

21. **Nectria amaniana** Zimm. Berichte üb. Land. und Forstwirth. 2746
Deutsch. Ostafrika, 1904, p. 31. — Peritheciis stromate carentibus, liberis, globosis, glabris, ochraceo-flavis, 200–260 μ. diam.; ascis octosporis; sporidiis oblongis, obtusis, 1-septatis, non constrictis, 7-8 × 3, hyalinis.

Hab. in ramis Cinchonæ succirubræ et C. Ledgerianæ in horto Amani Africæ orient.

22. **Nectria secalina** Ell. et Ev. in Journ. of Mycol. 1902, p. 66. — 2747
Peritheciis gregariis, ovato-globosis 100-120 μ. diam., luteo-aurantiacis, plus minusve leviter collapsis; ostiolo minuto, papilliformi; ascis clavato-cylindraceis, sessilibus, aparaphysatis, 40–55 × 7-8; sporidiis subdistichis, oblongis vel oblongo-ellipticis, 1-septatis, parce constrictis, hyalinis, 7-10 × 3-4.

Hab. in culmis Secalis cerealis, Alabama Americæ. — A *N. gibberelloide* E. et E. et a *N. Brassicæ* E. et Ev. differt peritheciis aurantiacis sporidiisque minoribus.

23. **Nectria Bolbophylli** P. Henn. Hedw. XLIV, 1905, pag. 171. — 2748
Peritheciis bulbicolis, sparsis, v. subaggregatis, ovoideis, apice obtuse papillatis, coccineis, ca. 200–230 μ. diam.; ascis cylindraceo-clavatis apice rotundato-obtusis, 8-sporis, 70–100 × 6-9; sporidiis oblique monostichis, ellipsoideis, utrinque obtuso-rotundatis, medio 1-septatis constrictis, hyalinis vel flavidulis 10-12 × 5-6.

Hab. in pseudobulbis emortuis Bolbophylli Lobbi in horto bot. Berolinensi (E. Behnick).

24. **Nectria dasyscyphoides** P. Henn. Hedw. XLIV, 1905, p. 172. — 2749
Peritheciis corticolis, sparsis vel subgregariis, 250–300 μ. ovoideis papillatis dein pezizoideo-collabentibus, carneis, basi hyphis villosis repentibus, hyalinis ca. 90 × $2^1/_2$–4 circumdatis; ascis subclavatis vel subfusoideis, apice obtusis vel acutiusculis, 8-sporis, 60-80 × 7-9; sporidiis oblique monostichis vel subdistichis, ellipsoideis, obtusis, medio 1-septatis, haud constrictis, 2-4-guttulatis, 9-12 × 4-5.

Hab. in ligno corticato, cum Orchidea connato, ex Kamerun Africæ importato, in horto bot. Berolinensi (E. Behnick).

IV. *Lasionectria* Sacc.

25. **Nectria cæsariata** Pat. Bull. Soc. Mycol. 1902, p. 303, f. XIV, 2750
f. 4. — Peritheciis epiphyllis, 3-5-confluenter gregariis vel sub-

solitariis, nullo stromate fultis, maculis fuscis denique arescentibus insidentibus, sphæroideis, albo-rubellis 680-800 μ. latis, poro punctiformi pertusis, apice atro excepto, pilis flexuosis, fasciculatim conjunctis, simplicibus, tenacibus, crasse tunicatis, transverse septatis, hyalinis vel plus minus rubro-tinctis, apice obtusis 120-250 μ. longis, 6-10 μ. cr., undique obsitis; contextu parenchymatico, rubiginoso v. rubro-atro; ascis cylindraceis, sursum rotundatis, deorsum attenuatis 130 × 12; sporidiis octonis, monostichis v. subdistichis, hyalinis, ellipsoideo-oblongatis, medio septatis, non constrictis 18 × 6.

Hab in foliis vivis Chusqueæ, in Brasilia (Glaziou). — *N. leucocomæ* Starb. affinis.

26. **Nectria vanillicola** P. Henn. F. javanici novi in Hedw. 1902, 2751
p. 141. — Peritheciis sparsis v. aggregatis, ovoideis, vertice papillato-acutiusculis, coccineis, membranaceis, ca. 150-180, pilis septatis apice plerumque incrassatis, rotundatis, curvulis, flavo-brunneis 40-80 × 3-5 vestitis, basi bysso velutina, cremea circumdatis; ascis subclavatis v. fusoideis, apice rotundatis v. subacutiusculis, octosporis, 35-45 × 7-10, paraphysibus septatis, hyalinis; sporidiis subfusoideis, 1-septatis, haud constrictis, 8-12 × 3,5-4, hyalinis.

Hab. in foliis Vanillæ aromaticæ, Buitenzorg Javæ.

27. **Nectria Vanillæ** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, 2752
p. 470, cum. icon. — Peritheciis plerumque compluribus aggregatis, globoso-conoideis 350-400 μ. alt. et 250-300 μ. lat., primo cinnabarinis, dein brunneolis, pilis clavulatis, pallidis, crebris vestitis, ostiolo conoideo denudato; ascis clavatis 50-60 μ. long., octosporis aparaphysatis; sporidiis oblongis, rectis, utrinque obtusulis, 1-septatis, non constrictis, hyalinis 9-2.

Hab. in caulibus Vanillæ cultæ, cui valde noxia, Buitenzorg in insula Java. — Simul adsunt acervuli flavo-albidi conidiophori; conidiis 1-septatis, 16-20 × 3,5-4, basidio paullo longiore suffultis.

28. **Nectria raripila** Penz. et Sacc. in Malpighia 1901, p. 228, Ic. 2753
fung. Javan. t. XXXII, fig. 2. — Peritheciis laxe gregariis, superficialibus, sphæricis, vertice obtuse conoideis, ostiolo perexiguo pertusis, aurantiacis, 200-250 μ. diam., parce pilosis; contextu laxe parenchymatico, tenui, dilute roseo-flavo; pilis filiformibus, subflexosis, obtusis, 80-100 × 10-14, septatis, ex hyalino roseis; ascis fusoideis, apice acutulis, subsessilibus, 70-75 × 10-12, mox diffluentibus, 4-5-sporis, aparaphysatis; sporidiis distichis fusiformibus, sæpe mæquilateris, utrinque obtusulis, 28-32 × 6,5-7, levibus, 1-

septatis, non constrictis, hyalinis, plasmate tenuissime longitrorsum striatulo.

Hab. in caulibus emortuis Elettariæ, Tjibodas, in insula Java (N. Fleischer). — Vere distincta, ad sect. *Lasionectriam* spectat, sed ob pilos vere parcos ad *Dialonectriam* accedit.

29. **Nectria pilosella** Rehm in Œst. Bot. Zeitschr. 1904, p. 87. — 2754
Peritheciis sparsis, sessilibus, globulosis, subumbilicatis, haud papillulatis, albo-succineis, poro obscuriore, vix conspicuo pertusis, 210-240 μ. diam., pilis crebris, rectis, simplicibus, ad basim dilatatam 5 μ. cr., 40-60 μ. long., versus apicem plus minusve subacutatis, septatis, hyalinis obsessis, parenchymatice contextis; ascis clavatis 50-60 × 7-8, octosporis; sporidiis fusiformibus v. subclavatis, rectis, medio septatis, haud constrictis, utraque cellula guttam oleosam 1-2 includente, hyalinis 12-14 × 3, plerumque oblique monostichis; paraphysibus tenerrimis, septatis, 2-3 μ. cr.

Hab. ad culmos Graminaceæ cujusdam in Valle Kienbach prope Andechs Bavariæ sup.

30. **Nectria Mercurialis** Boud. — Sacc. Syll. IX, pag. 969. — var. 2755
Urticæ Rehm in Œst. Bot. Zeitschr. 1904, p. 87. — Ascis clavatis 50 × 7-8; sporidiis obtusis fusiformibus vel oblongis, utrinque rotundatis, medio septatis, haud constrictis, utraque cellula guttas oleosas magnas includente, 12-17 × 4-5.

Hab. in caulibus siccis Urticæ dioicæ prope Neufriedenheim, pr. Monachium Bavariæ.

31. **Nectria gigantea** Speg. Myc. argent. ser. II, 1902, pag. 77. — 2756
Maculis nullis; peritheciis superficialibus, gregariis, aurantiis, sessilibus 0,5-0,75 mm. diam., carnosulis, hemisphærico-turbinatis, hispidulis, superne applanatis, glabris, vix papillulato-ostiolatis; spinulis erectis, 40-100 μ. long., 10-15 μ. cr., ex hyphis laxe coalitis 5 μ. cr., septulatis simplicibus obtusiusculis efformatis; ascis fusoideo-subclavatis aparaphysatis, apice obtusis, deorsum brevissime cuneato-stipitellatis 90-110 × 15, octosporis; sporidiis polystichis rectis vel leniter curvulis, 45-50 × 5-7, utrinque obtusiusculis, ad medium 1-septatis non constrictis, loculis æquilongis, 3-4-guttulatis.

Hab. ad caules putrescentes Conii maculati, S. Catilina, in Argentina.

32. **Nectria luteo-pilosa** A. Zimm. in Centralbl. f. Bakter. 1902, 2757
VIII, p. 182. — Peritheciis dense gregariis, ovoideis, prominulo-papillatis, cinnabarinis, pilis luteis fere usque ad verticem vestitis, 250 × 180; pilis concretionibus aureis globosis tectis, verruculosis et

fortiter curvis; ascis 8-sporis, apice obtusis; sporidiis oblongis, non constrictis, obtusis, 10,5-12,5 × 3; paraphysibus nullis.

Hab. in fructibus atratis Coffeæ libericæ, Buitenzorg Javæ.

IV. *Lepidonectria* Sacc.

33. **Nectria ornata** Mass. et Salm. Coproph. fungi II, p. 75, fig. 29-32. — Peritheciis sparsis, minutis, subglobosis dein vertice subdepressis, 330-500 μ. diam., ostiolo minuto, obscuro, aurantiacis, basim versus squamulis argenteo-nitentibus, patulis undique instructis; ascis cylindraceis vel cylindraceo-clavatis, 65-75 × 9-11, octosporis; sporidiis primo monostichis, deinde irregulariter distichis, ellipsoideis, utrinque obtusis, 12-14 × 4-5, hyalinis, 1-septatis, ad septum haud constrictis. 2758

Hab. in fimo equino, Kew Britanniæ.

34. **Nectria juruensis** P. Henn. Fungi Amaz. II. p. 244. Peritheciis gregarie cæspitosis, ovoideis apice papillatis mox collabentibus, cupulatis, flavo-succineis, cinereo-furfuraceis, squamis rotundatis, brunneolis, ca. 250-280 μ.; ascis clavatis, obtusis, 8-sporis, 60-80 × 18-22; sporidiis cylindraceis, utrinque rotundatis, intus granulatis, medio 1-septatis, haud constrictis, 20-40 × 8-10. 2759

Hab. in ramis corticatis, Bom Fim Rio Juruá et Marmellos Amazoniæ.

35. **Nectria Iriartiæ** P. Henn. Fungi paraenses II, in Hedw. 1902. p. 16. — Cæspitulis gregarie erumpentibus, pulvinatis, usque ad 2 mm. diam.; peritheciis plus minus numerosis, primo flavidis dein subminiatis, globosis vel ovoideis, ca. 150-200, pilis cirratis septatis flavidis, 20-60 × 6-7, exasperatis, ostiolis papillatis obscurioribus; ascis clavatis, apice obtusis 35-55 × 5-7; sporidiis distichis v. oblique monostichis, oblonge ellipsoideis v. subfusoideis utrinque obtusis, intus granulatis, medio 1-septatis, haud constrictis, 9-11 × 3,5-4 hyalinis. 2760

Hab. in corticibus emortuis truncorum Iriartiæ exorrhizæ Para, Amer. austr.

36. **Nectria hypocrellicola** P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 4. — Peritheciis cæspitoso gregariis, minutis, ovoideis apice rotundatis, papillatis, subfarinaceo-pulverulentis, flavidis, ca. 100-140 μ. diam.; ascis cylindraceis, apice rotundatis, basi attenuatis, curvulis 55 × 6-8 × 4,5-5,5; paraphysibus hyalinis, filiformibus v. obsoletis; sporidiis oblique monostichis, ellipsoideis, 2761

utrinque rotundatis, 1-septatis, constrictis, bi-guttulatis, 8-10 × 4,5 hyalinis, levibus.

Hab. in culmis Bambusæ, parasitica in Hypocrellæ spec., St. Catharina Brasiliæ austr.

37. **Nectria bulbicola** P. Henn. Notizbl. d. Bot. Gart. u. Mus. Berlin 1901, p. 98. — Peritheciis cæspitose erumpentibus, subgloboso-ovoideis, luteis v. succineis, apice papillatis, dein collabentibus, extus subtiliter furfuraceo-squamulosis, 180-210 µ. diam.; ascis fusoideo-clavatis, apice acutiusculis v. subobtusiusculis, basi attenuatis, 35-45 × 6-9, octosporis; paraphysibus haud conspicuis; sporidiis oblongis vel oblique monostichis vel subdistichis, utrinque obtusis, primo continuis, dein medio septatis, haud constrictis, 9-11 × 3,5, hyalinis. 2762

Hab. in bulbis Maxillariæ rufescentis in horto bot. Berolinensi Germ. — Sporodochia [*Tubercularia bulbicola* (Henn.) Sacc.] subpulvinata erumpentia, ceracea, albida dein flavescentia, sicco subfarinacea; conidiophoris fasciculatis filiformibus, hyalinis, 3 µ. cr.; conidiis ellipsoideis v. ovoideis continuis, 4-7 × 3-3,5, hyalinis.

38. **Nectria botryosa** P. Henn. Fungi Blumenavienses II, in Hedw. 1902, p. 3. — Soris botryose cæspitosis, erumpentibus, pulvinatis, 2-3 mm. diam.; peritheciis subglobosis, conico-papillatis, sicco collapsis, furfuraceo-squamosulis, flavidis ca. 160-200 µ. diam.; ascis clavatis, apice obtusis, octosporis 45-60 × 6-8; sporidiis fusoideis utrinque acutis 9-12 × 3-3,5, septatis, haud constrictis, hyalinis, levibus, oblique monostichis. 2763

Hab. in truncis putridis Palmarum, St. Catharina Brasiliæ austr.

39. **Nectria tuberculata** Trav. in Atti Congr. bot. Palermo 1902, p. 42. — Peritheciis superficialibus, plerumque solitariis, primitus strato conidiifero (*Dendrodochium Nectriæ* Trav.) tectis, dein liberis, pyriformi-globulosis, ostiolo minuto pertusis, 200-300 µ. d., miniato-rubris, grosse et parce squamoso-tuberculatis, ceraceo-membranaceis, contextu late parenchymatico, citrino-ochraceo; ascis cylindraceo-clavatis, superne truncatis, 85-100 × 9-12, octosporis, aparaphysatis; sporidiis distichis vel monostichis, ovato-ellipsoideis, 15-18 × 5-7, 1-septatis, non vel vix constrictis, loculo superiore paullo crassiore, diu hyalinis sed tandem ex hyalino fuscidulis. 2764

Hab. ad basim trunci Poincianæ regiæ jam emortuæ et putrescentis, in caldariis horti botanici, Padova Italiæ bor.

VI. *Hyphonectria* Sacc. (Cfr. n. 24).

40. **Nectria subfalcata** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 4. — Peritheciis sparsis v. aggregatis, basi byssino-albidis, hyphis ramosis, septatis, hyalinis, 4-7 μ. cr. circumdatis, subglobosis, flavo-brunneis, apice papillatis dein collabentibus, ca. 300-350 μ. diam., contextu pseudo-parenchymatico, flavo v. rufo-brunneolo; ascis late fusoideis, utrinque acutiusculis, octosporis 60-80 × 28-30; sporidiis conglobatis, longe fusoideis, utrinque acutiusculis, rectis vel falcatis, 1-septatis, oleoso-pluriguttulatis, 40-50 × 5-8, hyalinis, levibus. 2765

Hab. in caulibus putridis, St. Catharina Brasiliæ austr.

41. **Nectria rosella** Bres. Fungi Lusitanici in Broteria 1903, vol. II, pag. 91. — Habitus Hypomycetis; peritheciis dense gregariis vel rarius connatis, ovato-globosis v. ovatis, papillatis, 160-200 μ. latis, roseo-auroreis, exsiccando saturatioribus, subiculo byssoideo, albido, innatis; ascis cylindraceis, apice truncatis, 110-120 × 8-9; sporidiis hyalinis, ellipsoideis 1-septatis, demum ad septum subconstrictis 12-17 × 6-7. Subiculum *Fusarium* sistens: hyphis 3-4,5 μ. cr., apice conidia falcata 3-5-septata, hyalina 40-50 × 4-4,5 gerentibus. 2766

Hab. ad asseres Pini halepensis in Lusitania.

42. **Nectria pipericola** P. Henn. Fungi Amaz. II, p. 244. — Peritheciis plerumque meliolicolis, sparsis vel aggregatis, vix conspicuis, ovoideis, papillatis vel collapsis, pallide flavidis vel carneis, pilosis, ca. 80 × 60, basi hyphis repentibus, hyalinis, ramosis, septatis 3-3 $^1/_2$ μ. circumdatis; ascis subfusoideis v. clavatis, 18-25 × 5-7, apice obtusis tunicatis; sporidiis subdistichis fusoideis, rectis vel curvulis, 2-guttulatis, medio 1-septatis, haud constrictis, hyalinis, 8-10 × 3. 2767

Hab. in foliis Piperis sp. ad hyphas Meliolæ, Fortaleza Amazoniæ.

43. **Nectria byssiseda** Rehm in Rabenhorst-Pazschke Fung. eur. n. 4152. — Peritheciis dispersis, sessilibus, in medio mycelii tenuissimi cinereo-albi ex hyphis centrifugis, ramosis, septatis, hyalinis, 3 μ. latis constructi, maculas epiphyllas, subrotundas, ca. 0,5 cm. lat., mucedinis instar penicilli expansas formantis, globosis, dein apice collabentibus, subcarneis, parenchymatice subhyalino-contextis, glabris, ca. 0,1 mm. diam.; ascis clavatis, 30 × 9, 8-sporis; sporidiis fusiformibus v. oblongis rectis, 2-cellularibus, interdum 2768

utraque cellula nucleo 1 instructa, ad septum haud constrictis, hyalinis 9 × 3, distichis; paraphysibus filiformibus, hyalinis.

Hab. in fol. Pavoniæ spec. Sao Francisco, Estado Sta. Catharina Brasiliæ (E. Ule). — Peritheciis sporidiisque perparvis mox inter *Hyphonectrias* dignoscenda. Ex ipso cl. auctore (Hedw. 1900 p. 223) esset species eadem ac *Calonectria tubaroensis* Rehm, tamen, teste cl. Hennings, Hedw. 1904, p. 244, sporidiis fusoideis 1-septatis tute distinguitur.

44. **Nectria moschata** Glück — Syll. XIV, p. 638. — Cfr. quoque Glück in Engl. Jahrbüch. 1902. p 495, tab. XV-XVI.

VII. *Cosmospora* Sacc.

45. **Nectria Rickii** Rehm in Hedw. XLIV, p. 2. — Peritheciis dispersis 2769
sessilibus, conoideis, glabris, aurantio-rubris, 150 μ. alt.; ascis cylindraceis 60–70 × 5, octosporis; sporidiis oblongis, utrinque rotundatis, medio septatis, utraque cellula minute 1-guttulata, non constrictis, tenuissime verruculosis, hyalinis, dein flavidulis, 5-6 × 3,5-4, monostichis; paraphysibus tenerrimis, ramosis.

Hab. in stromate Kretzschmariæ lichenoidis, Sao Leopoldo Brasiliæ (Prof. Rick). — A *N. episphæria* var. *Kretzschmariæ* et *N. xanthostromate* sporidiis minutis tenuiter verruculosis distinguenda species.

46. **Nectria stigme** Rehm in Hedw. XLIV. — Peritheciis gregariis, 2770
sessilibus, conoideo-globosis, glabris, purpureo-rubris, apicem versus plerumque obscurius tinctis, 240 μ. alt. et lat ; ascis clavatis tenuis, 80–85 × 12, octosporis; sporidiis ellipsoideis, medio septatis, haud constrictis, utraque cellula gutta magna oleosa prædita, exosporio crasse verruculoso, hyalinis, 12-14 × 7, distichis; paraphysibus ?

Hab. in stromate destructo Kretzschmariæ lichenoidis, Sao Leopoldo Brasiliæ (Prof. Rick). — A *N. xanthostromate* præcipue sporidiis majoribus, crasse verrucosis dignoscitur. E sect. *Cosmospora.*

VIII. *Phœonectria* Sacc.

47. **Nectria madeirensis** P. Henn. Fungi Amaz. II, p. 244. — Pe- 2771
ritheciis gregarie cæspitosis, ovoideis, coccineis, pruinosis, papillatis, dein collabentibus, 250-300 μ. diam.; ascis clavatis, rotun-

datis 8-sporis, 120-130 μ.; sporidiis fusoideis, utrinque obtusiusculis, rectis vel curvulis, medio septatis, haud constrictis, 20-32 × 6-10, brunneo-fuscis.

Hab. in truncis corticatis emortuis, Marmellos, Rio Madeira Amazoniæ.

IX. *Lichenonectria* Sacc. Species lichenicolæ, parasiticæ.

48. **? Nectria epicallopisma** (Arn.) Sacc. et D. Sacc. *Cercidospora epicallopisma* Arn. Fragm. XXV in Flora 1881, n. 20, t. VI, f. 14. — Peritheciis aurantio-rubris, exiguis; ascis 4-sporis, cylindraceis; sporidiis bicellularibus, fusoideis, hyalinis, 15-18 × 4; paraphysibus obsoletis. 2772

Hab. in thallo Gyalolechiæ callopismatis, Vaucluse Galliæ.

49. **Nectria insidiosa** (Nyl.) Sacc. et D. Sacc. *Hymenobia insidiosa* Nyl. Lich. Alg. p. 338, Hue Add. Nyl. pag. 327, *Psora aporea* Nyl. Collect. Pyr. p. 15. — Peritheciis (?) microscopicis totis incoloribus; ascis octosporis; sporidiis oviformibus, hyalinis, 1-septatis, 12-15 × 4-5. 2773

Hab. in apothecciis Lecideæ juranæ et Lec. phylliscocarpæ in Gallia, Pyrenæis, Algeria. — Affinis *N. lichenicolæ?* Sed ob descriptionem imperfectam omnino dubia.

BRESADOLELLA v. Höhn. in Ann. Mycol. I (1903) p. 522 (Etym. in honorem viri clarissimi et amicissimi ab. Jacobi Bresadolæ, de re mycologica meritissimi). — Perithecia superficialia, sessilia, libera, globosa, carnosa, ex aureo olivascentia, pilis rigidis ornata, ostiolo minuto; paraphyses parcæ; asci clavati, octospori; sporidia hyalina, e cellulis binis, oblongis, facile jamque ipso in asco se separantibus formata. — A gen. *Neorhemia* præsertim ostioli præsentia dignoscitur.

1. **Bresadolella aurea** v. Höhn. l. c. — I. Fungus ascophorus. Plantula saprophytica; perithecciis sparsis, globosis, minutis, 70-110 μ. latis, ex aureo olivascentibus, carnosis, undique pilis paucis (usque 8-10), non septatis, acutis, leniter curvatis, primum aureis, demum atris, impellucidis, brevibus, 40-70 × 6-7, obtectis; ostiolo minuto, subpapillato; paraphysibus parcis, filiformibus; ascis tenuissimis, clavatis, acutis, numerosis, 30-36 × 5-6, octosporis, cum paraphysibus sæpe aureo-tinctis; sporidiis subdistichis vel oblique mono- 2774

stichis, hyalinis, oblongis, 8 × 1,5 e cellulis binis, oblongo-cuneatis, facile jamque ipso in asco se separantibus formatis. — II. Fungus conidiophorus?: *Dendryphium Bresadolellæ* v. Höhn. — Hyphis sterilibus parcis, obsoletis; hyphis fertilibus fasciculatis, erectis, subpellucidis, fere nigris, 7-10-septatis, sæpe irregulariter breveque ramulosis, usque 450 × 10-11; ramulis supra et ad basin obtusis, 1-3-cellularibus, 30-80 μ. longis; conidiis ad ramos acrogenis, solitariis vel ad 2 concatenatis, cylindraceis, utrinque rotundatis, crassiuscule tunicatis, tunica 3–5 μ. lata, septatis, non constrictis, obscure fuligineis, 48-68 × 14-21.

Hab. in ligno putrido Fagi, prope Pressbaum Austriæ inferioris, loco « Viehoferin » dicto.

SPHÆROSTILBE Tul. — Syll. II p. 511, IX p. 972, XI p. 389.

1. **Sphærostilbe hypocreoides** P. Henn., Fungi blumenavienses II, in Hedw. 1902, p. 4. — Stromatibus carnosis, rotundato-hemisphæricis, flavo-subcarnescentibus, ca. 1-2 mm. diam.; peritheciis subimmersis, subglobosis, ostiolo papillato-prominulis, minutis; ascis cylindraceo-clavatis, obtusis, octosporis, 65-75 μ. long. p. sp. 50-60 × 57; sporidiis oblique monostichis, ellipsoideis, utrinque rotundato-obtusis, biguttulatis, dein medio 1-septatis, haud constrictis, 9-12 × 4-5,5 hyalinis, levibus; fasciculis conidiophoris clavatis, pedicello ca. 600 × 60, capitulis subglobosis ca. 150-180 μ. diam., flavidis; conidiis ellipsoideis, 8-10 × 4–5, hyalinis. 2775

Hab. in truncis, St. Catharina Brasiliæ austr.

2. **Sphærostilbe marmellosensis** P. Henn. Fungi Amaz. II, p. 245. — Peritheciis cæspitose erumpentibus, ovoideis, obtuse papillatis, rufo-brunneis vel subcoccineo-fuscidulis, ca. 150-200 μ.; ascis clavatis, obtusis, 50-80 × 15-18, 8-sporis, subdistichis ellipsoideis vel subclavatis, utrinque obtusis, medio 1-septatis, hyalinis, 15-20 × 7-8; conidiis clavatis vel stipitato-spathulatis, flavido-brunneolis, obtusis, ca. 1 mm. longis, 250 μ. crassis; conidiis fusoideis, hyalinis $2^1/_2$-3 × 1. 2776

Hab. in corticibus arborum Marmellos, Rio Madeira Amazoniæ.

RHYNCHONECTRIA v. Höhnel, Fragmente zur Mykologie 1903, p. 37 (Etym. *rhynchos* rostrum et *Nectria*). — Perithecia superficialia, carnosa, pallida v. læte colorata, elongata, ostiolo acute terminata; asci 4-8-spori; sporidia hyalina fusiformia, 1-septata, utrinque ciliata. — Ab *Eleutheromycete* sporidiis bilocularibus dignoscitur

et in Tab. comp. (Syll. XIV, p. 24) casulam n. 74*bis* inter Hypocreaceas occupabit.

1. **Rhynchonectria longispora** (Phill. et Plow.) v. Höhnel l. c. *Eleutheromyces longisporus* Phill. et Plowr. — Syll. IX, p. 942.

PODOCREA Sacc. — Syll. II p. 530, XIV p. 645 XVI p. 587 (ut subgen.). — Penz. et Sacc. in Malpighia 1902, p. 229 (Etym. *pous podos,* pes et *crea* pro *Hypocrea*). Ab *Hypocrea* distinguitur stromate verticaliter elongato, ostiolis brevibus. — Huc ducendæ sunt species sequentes: *Podocrea larvata* (Mont.) Sacc. et D. Sac., *Pod. Petersii* (B. et C.) Sacc. et D. Sacc., *Pod. brevipes* (Mont.) Sacc. et D. Sacc. (omnes Syll. II, p. 530-531 sub *Hypocrea*); *Pod. Cornudamæ* (Pat.) Sacc. et D. Sacc. (Syll. XIV, p. 644); *Pod. deformans* (Bomm. et Rouss.) Sacc. et D. Sacc., *Pod. poronioidea* (A. Möll.) Sacc. et D. Sacc., *Pod. pezizoidea* (A. Möll.) Sacc. et D. Sacc., *Pod. sphæroidea* (A. Möll.) Sacc. et D. Sacc. (omnes Syll. XVI, p. 587).

1. **Podocrea Cordyceps** Penz. et Sacc. in Malpighia 1902, p. 229 et Icon. Fung. Javan. tab. 36, fig. 4. — Sparsa, simplex, tereticlavata, erecta, carnosa, coccinea, glabra, 5-6 cm. alta, 3 mm. cr. (in clava), stipite cylindraceo, clavam subæquante et ea vix subtiliore, nempe 2,5 mm. cr ; clava apice obtuse tenuata, ostiolis minutissime punctata; peritheciis globulosis, 180-250 μ. diam., ostiolis vix prominentibus; ascis cylindraceis, in ostiolum convergentibus, 70-80 × 3,5, facile fluxilibus, octosporis, obsolete paraphysatis; sporidiis monostichis, oblongis, bilocularibus, inter se arcte approximatis, utrinque obtusis, hyalinis 8-10 × 3, articulis elliptico-cuboideis, 4-5 × 3, facile secedentibus, dein echinulato-asperulis. 2777

Hab. ad terram, forte ex sclerotio quodam, Tjibodas, in insula Java (M. Fleischer). — *Podocrea* Sacc., hucusque ut subgenus habita, formis novis et conspicuis accedentibus, in generis honorem extolli meretur. Præsens species faciem *Cordycipitis* omnino reddit.

2. **Podocrea Lloydii** (Bres.) Sacc. et D. Sacc *Hypocrea Lloydii* Bres. in Lloyd, Mycol. Not. 1902, n. 9, p. 87 c. ic. — Habitu omnino *Cordycipitis;* stromate longe stipitato, apice clavula perithecigera obovato-oblonga, 1,5 cm. longa, 3 mm. cr. farcta prædito; peritheciis minimis immersis, subglobosis, ostiolis punctiformibus prominulis ubique tectis; stipite farcto, glabro, tereti, tortuoso, al- 2778

bido 3 cm. longo. 2 mm. cr.; ascis cylindraceis, octosporis, 100 × 4-5; sporidiis in articulos 16 solutis, articulis subcuboideis, subglobosis, 3-4 × 3-3.5.

Hab. in Virginia occid. (Lloyd). — Habitu *Cordycipitis* et fructificatione *Hypocreæ*, ut præcedens, hin prædistincta species!

HYPOCREA Fr. — Syll. II p. 520, IX p. 972, XI p. 361, XIV p. 641, XVI p. 583.

1. **Hypocrea cupularis** Pat. in Duss Enum. Champ. Guadel. 1903, 2779
pag. 80. — Subiculo nullo; stromatibus sparsis v. confluentibus, sessilibus, cupuliformibus, tenuibus, orbicularibus, margine integro et sinuoso, rigidulis, duris, 1 mm. diam. primitus albis, dein pallide rufis, facie superiore concavis, præter marginem sterilem, ostiolis punctatis; peritheciis immersis, punctiformibus, rufis; ascis cylindricis, rectis, 80 × 5; sporidiis cylindricis v. cuneiformibus, utrinque rotundatis, in loculos binos æquales non secedentes partitis, 10 × 4, incoloribus.

Hab. in cortice putri Sterculiæ caribææ, Montéran Guadalupæ.

2. **Hypocrea insignis** Berk. et Curt. — Syll. II pag. 534, ubi diagn. incompleta — Patouill. Champ. de la Guadeloupe ser. III, in Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Ascis cylindraceis 80 × 5; sporidiorum articulis 16, globosis, 3-4 μ. diam., hyalinis

Hab. in ligno putri, in insula Martinica Amer. centr.

3. **Hypocrea hypoxyloides** P. Henn., Fungi blumenavienses II, in 2780
Hedw. 1902, p. 5. — Stromatibus carnosis, duris, breve crasseque stipitatis, hemisphærico-pulvinatis, margine obtusis, undulatis, rufo-ferrugineis, pruinosis v. subtomentosulis, 2-10 mm. diam.; peritheciis subglobosis, immersis, ostiolis punctulatis, minute subpapillatis, obscurioribus; ascis cylindraceis, apice obtuso-rotundatis, basi attenuato-stipitatis, 70-80 × 4; sporidiis mox in 16 cellulas globosas hyalinas 3,5-4 μ. diam. secedentibus.

Hab. in truncis, S. Catharina Brasiliæ austr.

4. **Hypocrea rufa** (Pers.) Fr. — Syll. II, p. 520. — var. **discoidea** 2781
Rehm, Hedw. 1902, p. (206). — Stromatibus gregariis, primitus in mycelio tenuissimo late expanso, albo sessilibus, discoideis, orbicularibus, vix lobatis, haud tuberculosis nec convexis, in sicco planis, crasse pseudomarginatis 2-4 mm. diam., 1 mm. crassis, junioribus citrinis, subalbido marginatis, adultis subolivaceis, su-

perficie minutissimis ostiolis fuscidulis punctulatis, intus albidis, stromate exteriore flavescente; peritheciis circ. 200 μ. diam.; sporidiis globosis 3 μ. diam. hyalinis.

Hab. ad truncos in Europa et Amer. bor.

5. **Hypocrea xylariicola** P. Henn. Fungi S. Paulenses III, p. 206. — 2782
Stromatibus ceraceo-carnosis, isabellinis, pulvinato-effusis, 1-4 mm. diam., ostiolis punctoideis, fuscidulis; peritheciis immersis ovoideis, 90-120 μ.; ascis cylindraceis obtusis, 70-85 × 4 ½-5 ½; cellulis sporidiorum, 16, subcuboideis v. subglobosis ca. 4-5 μ, episporio levi flavidulo.

Hab. in stromate Xylariæ spec., Serra de Cantareira Brasiliæ.

6. **Hypocrea tangensis** P. Henn. Fungi Afr. orient. II, in Bot. Jahrb. 2783
XXVIII, p. 38. — Stromatibus carnosis, pulvinato-effusis, flavidis, ca. 1 cm. diam., ostiolis vix obscurioribus, subconoideo-prominulis; peritheciis immersis, subglobosis vel ovoideis; ascis cylindraceis, apice obtusis, basi paullo attenuatis, intus primo 8-septatis, dein octosporis, 80-100 × 4,5-5; sporidiis monostichis e cellulis duabus æqualibus, cuboideo-ellipsoideis, 1-guttulatis, 4-5 × 3,5-4, hyalinis.

Hab. in lignis, Usambara Africæ or. (Kummer).

7. **Hypocrea umbilicata** P. Henn. Fungi blumenavienses II, in Hedw. 2784
1902, pag. 5. — Lignicola; stromatibus carnosis, hemisphæricis, centro umbilicato-depressis c. 7-9 mm. diam., e flavido subcarnescentibus; peritheciis subglobosis ca. 180-200 μ. diam., hemisphærico-papillatis; ascis cylindraceis, apice obtusis, basi attenuato-stipitatis 40-50 × 3-4; cellulis sporidiorum (16) globosis, ca. 3 μ. hyalinis.

Hab. in truncis, St. Catharina Brasiliæ austr.

8. **Hypocrea platensis** Speg. in Ann. Soc. Cient. Arg. 1899, p. 270. 2785
— Stromatibus sparsis v. laxe gregariis, orbicularibus 2-5 mm. diam., superne concaviusculis vel vix undulatis, epunctatis, aurantiis, margine acutis integris, inferne convexulis, pallidis, glaberrimis, latiuscule adnato-sessilibus; peritheciis numerosissimis constipato-globulosis 90-100 μ. diam., vix ostiolatis, melleis, nucleo olivaceo-farcto; ascis cylindraceis, antice obtuse rotundatis, postice breviter attenuato-pedicellatis 70-90 × 4-4,5, octosporis aparaphysatis; sporidiis rectis, monostichis, olivaceis, bilocularibus, loculis mox secedentibus, globosis v. subglobosis 3,5-4 levibus.

Hab. ad ramos dejectos putrescentes Erythrinæ crista-

galli in insula Santiago, prope La Plata Argentinæ. — *Hyp. pezizæformi* simillima, sed stromatibus aurantiis sporidiisque olivaceis sat recedens.

9. **Hypocrea pulchella** Penz. et Sacc. in Malpighia 1901, pag. 229, 2786
Ic. fung. Jav. t. XXXVI, f. 3. — Stromatibus gregariis, minutis, sessilibus, disciformibus, 0,7 mm, subplanis, succineo-aurantiis, minutissime verruculosis, ostiolis perexiguis obscurius punctatis; peritheciis globulosis, numerosis; ascis cylindraceis apice rotundatis, deorsum sensim leviter tenuatis 45-50 × 2,8-3, octosporis; sporidiis monostichis, bilocularibus, olivaceis, dein in articulos globosos, 2,5-3 μ. diam. dilabentibus.

Hab. in ramis corticatis emortuis prope Buitenzorg, in insula Java. — Affinis *H. Catoptro*, sed asci et sporidia dimidio breviora. Ascomata in alcohole dilute flavida.

10. **Hypocrea rufo-alutacea** P. Henn. Fungi blumenavienses II, in 2787
Hedw. 1902, p. 6. — Ascomatibus carnosis, firmis, turbinato-scutellatis, extus rufo-brunneis, pruinosis, disco alutaceo, plano v. undulato, ca. 3 mm. 1 cm. diam.; peritheciis immersis, subglobosis, ostiolis punctulatis obscurioribus; ascis ca. 60-65 × 4-4,5, octosporis, apice rotundatis, basi attenuatis; cellulis sporidiorum globosis v. cuboideo-angulatis ca. 3,5-4, primo flavis dein brunneo-rufis, levibus.

Hab. in ligno emortuo, St. Catharina Brasiliæ austr.

11. **Hypocrea porioidea** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 2788
— Stromatibus crustaceo-effusis, planis, gregario-confluentibus, poroideis, pallide ferrugineis, ambitu albo-byssinis, plerumque 3-5 mm. diam.; peritheciis immersis, subglobosis vel ovoideis 80-110 μ. diam., ostiolis punctiformibus, ferrugineis; ascis cylindraceis, apice obtusis, octosporis, ca. 55-66 × 3,5-4; cellulis sporidiorum globoso-subcuboideis, hyalinis, 1-guttulatis 3-3,5.

Hab. in ramis emortuis, Ost-Usambara Africæ orient. (Engler).

12. **Hypocrea discelloides** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. 2789
— Stromatibus rotundato-pulvinatis, applanatis vel subglobosodepressis, 1-2 mm. diam., primo citrinis, dein aurantio-fuscescentibus, ostiolis minute punctoideis, obscurioribus; peritheciis immersis, ovoideis ca. 150 μ.; ascis cylindraceis, apice obtusis, octosporis, 40-60 × 2,5-3; sporidiis globosis, hyalinis 2,5 μ. diam.

Hab. in truncis emortuis, West-Usambara Africæ orient. (Engler).

13. **Hypocrea Agaves** Maublanc in Bull. Soc. Myc. de France 1903, 2790

fasc. 3, p. 292, tab. XV, fig. 3. — Stromatibus in maculis obsoletis, aggregatis, superficialibus, atro-purpureis, mamillosis, orbicularibus v. oblongis; peritheciis globulosis vel ovatis, ostiolis prominulis; ascis aparaphysatis, fusoideis, utrinque attenuatis, brevissime pedicellatis, octosporis, 60–70 × 18-20; sporidiis hyalinis, inordinatis, fusiformibus, obtusis, 1-septatis, ad septum breviter constrictis, 23-26 × 6-7.

Hab. in foliis Agaves spec. in Mexico.

HYPOMYCES Fr. — Syll. II p. 466, IX p. 954, XI p. 356, XIV p. 641, XVI p. 582.

1. **Hypomyces Bresadolæ** Sacc. Notæ Myc. in Syd. Ann. Myc, 1903, pag. 25. — Subiculo membranaceo-carnosulo, versiformi, pallido, glabrescente, ex hyphis crassiuscule cylindraceis, parce ramosis 7-12 μ. cr., septatis, dense intermixtis formato; hyphis exterioribus fertilibus; conidiis perfecte globosis, crasse tunicatis, minute muriculatis, 28–32 μ. diam., pallide citrinis; peritheciis globoso-conicis, parte inferiore subiculo immersis 80–100 μ. diam., glabris, carnosulis, rubro-aurantiis; ascis cylindraceis, obtuse tenuatis, breve stipitatis 150-160 × 7-9, octosporis, aparaphysatis; sporidiis fusoideis, recte v. oblique monostichis, 18-21 × 5-6, biguttatis, tandem tenuiter 1-septatis, hyalinis. 2791

Hab. ad acus, frustula lignea Abietis excelsæ, in silva Tertiolesi, Val di Sole agri Tridentini. — Affinis *H. chrysospermo*, a quo recedit habitatione, subiculo, conidiis multo majoribus et citrinis etc. St. conidicus *Sepedonii* speciem sistit.

2. **Hypomyces Biasolettianus** (Br. et Farn.) Sacc., *Chrysogluten Biasolettianum* Br. et Farn. Int. ad un nuovo tipo di Licheni a tallo conidifero, p. 15, tab. V–VI (Atti Ist. Bot. Pavia vol. VIII, 1902). — Thallo seu stromate conidiophoro et ascophoro *Pionnotem Biasolettianam* (Corda) Sacc. sistente; peritheciis plus minus dense gregariis, primum subglobosis, in superficie thalli inclusis, dein piriformibus, ostiolis conicis emergentibus, vertice pertusis, rubro-aurantiis, carnosis, contextu parenchymatico, aurantiaco, 200–250 × 130–150; ascis cylindraceis, breve stipitatis, aparaphysatis apice rotundatis (initio sub apice contractis ut in *Nectriaceis!*), octosporis, 80-90 × 7-7,5; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, rectis, 12–13 × 6–7, intus granulosis, hyalinis. 2792

Hab. ad truncos languidos v. demum emortuos Vitis viniferæ, Vercelli, Milano, Vicenza, Treviso etc. in Ital. bor. — Cll.

Briosi et Farneti, suspicati algulas quasdam virentes 1-paucicellulares intra thallum *Pionnotis* visas, sistere stratum gonidicum lichenis proprii, stirpem hanc pro novo genere et nova lichenum familia (*Chrysoglutinaceæ*) descripserunt; sed hanc attributionem habitus omnino funginus utriusque formæ evidentissime excludit. Certe de *Hypocreaceo* fungo agitur, *Hypomyceti Trichodermati* (Hoffm.) Sacc. Syll. II, 475 proximo, nec obstat matrix non fungina, cum species nonnullas *Hypomycetis* non fungicolas habeamus. — Specimina perfecte matura cl. prof. Brizi communicavit.

3. **Hypomyces Arecæ** Baccarini, in Nuovo Giorn. bot. ital. 1902, 2793
vol. IX, n. 4, pag. 497. — Peritheciis gregariis vel pro natura matricis, plus minus dense stromaticis, rotundis, stromate immersis vel semiimmersis et emersis, aureo-flavis, epapillatis, 0,3 mm. latis; ascis linearibus 38 × 4 octosporis; sporidiis oblique monostichis, ellipticis, uni-septatis, ad septum non vel vix constrictis, 9,5 × 3,5; hyphis conidiophoris sejunctis candidulis v. roseis, juventute simplicibus vel sæpius, instar *Verticillii* vel (senectute) *Penicillii*, ramosis; ramulis ad quemquam articulum ternis v. quinis, acuminatis 20 μ. longis, 2 μ. latis; conidiis ellipticis 3,8 × 2,5 hyalinis vel coacervatis isabellinis, simplicibus; sclerotiis? rotundis, perexiguis 0,4 mm. latis, medulla pseudoparenchymatica oleosa; cortice lutescente.

Hab. in foliis siccis Arecæ madagascariensis in horto botanico Firenze Italiæ centr.

4. **Hypomyces albidus** Rehm, Hedw. 1903, p. 291). — Peritheciis gre- 2794
gariis, sessilibus, in mycelio late expanso albissimo hypharum rectangulariter ramosarum, hyalinarum, septatarum 4-5 μ. cr., globosis, demum subconoideis, vix papillulatis, hyalinis, demum subflavidulis, in sicco collabentibus, parenchymatice contextis, 150-200 μ. diam.; ascis cylindraceis 120 × 9, octosporis e paraphysibus nullis; sporidiis ellipsoideis, utrinque acutatis, medio septatis et vix constrictis, utraque cellula guttam magnam oleosam includente, utroque apice minutissime appendiculatis, hyalinis, scabriusculis 20-22 × 7-8, 4-8 monostiche positis.

Hab. parasitica in hymenio Sterei sanguinolenti, Schneeberg Austriæ inf. (Doct. v. Höhnel).

5. **Hypomyces arenaceus** Annie L. Smith, Journ. Linn. Soc. XXXV, 2795
p. 17, tab. III, fig. 6-8 (extr.) — Syll. XVI, p. 1140 (nomen). — Peritheciis sparsis v. confertis, arenæ micas annulantibus, fulvis, exiguis, circa 150-250 μ. diam.; ascis cylindraceis, angustis,

100 μ. longis; paraphysibus filiformibus; sporidiis monostichis, ovato-oblongis, circiter 10 × 4-5, uniseptatis, hyalinis.

Hab. in hymenio Sterei, in insula Dominica Indiæ occid.

6. **Hypomyces galericola** Henn. in Hedw. 1902, p. (214). — Mycelio 2796
byssino, flavidulo, hyphis ramosis, septatis, hyalinis ca. 2,5-3,5 μ. crassis; peritheciis sparsis vel aggregatis, subgloboso-ovoideis, vertice minute papillatis, pallide flavis; ascis oblonge clavatis, apice obtusis, octosporis, 90-120 × 9-11; sporidiis subdistichis, subfusoideis, curvulis, utrinque subacutiusculis, medio 1-septatis, hyalinis 12-15 × 3,5-4.

Hab. parasitice in Galera rubiginosa, pr. Cairo Ægypti.

7. **Hypomyces caulicola** P. Henn. Fungi blumenavienses II in Hedw. 2797
1902, p. 2. — Stromatibus caulicolis, pulvinatis 1-1,5 mm. diam.; hyphis septatis, ramosis, hyalinis 4-6 μ. cr. circumdatis; peritheciis semiliberis subovoideis, apice rotundatis, luteo-carnescentibus 180-200 μ. longis. 90-100 μ. latis; ascis cylindraceo-clavatis vel subfusoideis, apice obtusiusculis vel acutiusculis, basi attenuatis, octosporis, 55-65 × 4-5; sporidiis oblique monostichis, fusoideis utrinque subacutiusculis, 1-septatis, haud constrictis, hyalinis, levibus 9-11 × 3-3,5.

Hab. in caulibus putridis, St. Catharina Brasiliæ austr.

8. **Hypomyces sepulcralis** Pat. Champ. de la Guadeloupe, ser. III, in 2798
Bull. Soc. Myc. de France t. XVIII, fasc. II, 1902. — Stromate crustaceo, irregulari, albido-ochraceo, subtili; peritheciis globosis, semiimmersis, brunneis, dense congestis; ostiolis conicis, emergentibus; ascis cylindraceis, rectis 120-150 × 5-6, octosporis; sporidiis monostichis, fusoideis, hyalinis, non appendiculatis, paullulo rugulosis vel levibus, 1-septatis, ad septum non constrictis, 10-14 × 4-5.

Hab. ad terram in sepulcreto, Guadalupa Amer. centr. — *H. terrestri* affinis.

9. **Hypomyces boletinus** Peck, Rep. State Bot. 1903, p. 15. — Peri- 2799
theciis minutis, conicis vel subglobosis, subiculo pallido vel albido dense nidulantibus, pallide rubris vel aurantiis; ascis linearibus tenuibus 100-120 × 7-8; sporidiis subfusiformibus continuis (semper?) uno apice acuminatis vel apiculatis, 20-25 × 6-7.

Hab. in Boleti spec. indeterminata, putrescente, socio *Sepedonio chrysospermo.* — Ab *H. polyporino* et *H. boleticola* notis datis satis diversus.

10. **Hypomyces stereicola** P. Henn. in Hedw. 1903, p. (79). — My- 2800

celio aurantio, crustaceo, effuso, hyphis flavidis v. subhyalinis, septatis, ramosis, ca. 3-4 μ. cr.; conidiis subglobosis aurantiis, intus punctulatis, 2,5-3 μ.; peritheciis sparsis v. gregariis, liberis, ovoideis v. subglobosis, citrinis, levibus, apice papillatis, pallidioribus, 130-180 × 120-150; ascis cylindraceis, apice obtusis, octosporis, 40-50 × 2-2,5; sporidiis monostichis, fusoideis, utrinque acutis, primo continuis guttulatis, dein medio 1-septatis, haud constrictis, 4,5-5,5 × 1,5-2.

Hab. in pagina inferiore Sterei lobati, ubi stratum aureum format, N. Queensland Australiæ (Pritzel).

11. **Hypomyces ?conviva** Baccarini, in Nuovo Giorn. bot. ital. 1902, 2801
vol. IX, n. 4, p. 498. — Status ascophorus ignotus; hyphis conidiophoris fulvis, sejunctis ac cæspitosis; vel in generatione e chlamidosporis ortis, fasciculatis, pluries verticillato-ramosis; ramulis ad quamque articulum ternis v. quaternis, ovato-acuminatis 11-18 μ. longis, 2-3 μ. latis; conidiis ellipticis, fulvis 2-3,8 μ.; hyphis conidiophoris fasciculatis ad apicem versus pallescentibus atque conidia altera hyalina gigentibus; chlamydosporis solitariis, obovatis, fulvis, bicellularibus; articulo superiore majore, membrana crassa verrucosa 30 × 28, infimo obconico 18 × 7, membrana levi.

Hab. in foliis siccis Arecæ madagascariensis, in horto botanico Firenze Ital. centr.

12. **Hypomyces exiguus** Pat. Champ. de la Guadeloupe, ser. III, in 2802
Bull. Soc. Myc. de France, t. XVIII, fasc. II, 1902. — Subiculo e tomento byssoideo albo contexto; peritheciis albido-luteolis, pellucidis 130-160 μ. diam.; ascis aparaphysatis, cylindraceis 30-35 × 3-4, octosporis; sporidiis monostichis, levibus, hyalinis, ovoideis, continuis, 3-4 × 2.

Hab. parasitice in Stemonitis sp., Guadalupa Amer. centr. *H. violaceo* Tul. affinis.

LISEA Sacc. — Syll. II p. 517, XI p. 360, XIV p. 640, XVI p. 581.

1. **Lisea Parlatoriæ** A. Zimm. in Centr. f. Bakter. u. Paras. II, Abth. 2803
VII, 1901, p. 873. — Stromate parasitico; peritheciis dense gregariis, liberis, globosis, verruciformi-papillatis, 0,2-0,25 mm. long., 0,15-0,18 mm. cr., nigricantibus; contextu sub microscopio atro-violaceo v. atro, hydrati chloralii calefacti ope amœne rubro-violaceo; ascis cylindraceis, 8-sporis; sporidiis ellipsoideis, obtusis, 1-

septatis, non constrictis, hyalinis v. dilutissime brunneolis, 9-12 × 4,5; paraphysibus nullis.

Hab. parasitice in Parlatoria Zizyphi in foliis Citri, Buitenzorg Javæ.

2. **Lisea exiguella** (Nyl.) Sacc. et D. Sacc. *Verrucaria exiguella* Nyl. 2804
Flora 1873, p. 204. — Peritheciis 100 μ. diam. super cyaneis, inferne fere achrois; ascis octosporis paraphysatis, jodo non tinctis; sporidiis fusoideis, bicellularibus, hyalinis, 21–27 × 6-8.

Hab. in thallo Rinodinæ exiguæ prope Portum Veneris in Pyrenæis orient. Quoad genus dubia.

CORALLOMYCES B. et C. — Syll. II p. 519, XIV p. 646, XVI p. 590.

1. **Corallomyces brachysporus** Penz. et Sacc. in Malp. 1901, p. 228, 2805
Ic. fung. Jav. t. XXXVII, f. 1. — Stromatibus erectis, firme carnosis, stipitiformibus, simplicibus v. parce ramosis, sæpius cæspitosis, cylindraceis, aurantiacis, rugosis 1-1,5 mm. altis, 350 μ. cr., apicibus incrassatis obtusis conidiophoris; conidiis longe anguste fusoideis 100-110 × 6,5, leniter curvis, 8-12-septatis, non constrictis, in basidiis bacillaribus, septatis, fasciculatis 4,5-5 μ. cr. pleurogenis (nec acrogenis); peritheciis in medio stipite sessilibus, paucis, globoso-conoideis, brevissime papillatis, atro-rubris 200-240 μ. diam.; ascis cylindraceis, breve stipitatis 100–110 × 7 octosporis; sporidiis monostichis, ellipsoideis, utrinque rotundatis, 1-septatis, non constrictis, 12-13 × 7 hyalinis.

Hab. ad truncos putres prope Buitenzorg in insula Java. — Ab affini *Corall. Jatrophæ* A. Möll., pariter fusariogeno, differt sporidiis multo brevioribus (nec 30-40 × 7-9).

2. **Corallomyces mauritiicola** P. Henn. Fungi Amaz. II, p. 244. — 2806
Stromatibus fruticuloso-ramosis, cæspitosis, miniatis v. brunneo-coccineis, ramis conidiogenis erectis subteretibus vel compressis, apice clavulatis ca. 120 μ. crassis, miniatis, conidiis fusoideis, hyalinis, ca. 14–18 × 6-7, conidiophoris hyalinis 2-3 μ. crassis, filis usque ad 100 μ. longis intermixtis; peritheciis lateraliter sessilibus, ovoideis papillatis, coccineis ca. 200 μ. diam. dein collapsis; ascis cylindraceo-clavatis, obtusis, 8-sporis, 80-120 × 8-12; sporidiis ellipsoideis, rotundatis, medio 1-septatis paullo constrictis, 2-guttulatis, primo hyalinis dein brunneis, 11-18 × 6-8.

Hab. in stipitibus emortuis Mauritiæ flexuosæ, Miry, Rio Juruá Amazoniæ. — *C. eleganti* affinis.

3. **Corallomyces Caricæ** P. Henn. Fungi Amaz. II, p. 245. — Stroma- 2807
tibus pulvinatis, fruticuloso-ramosis, coccineis, ramulis compressis; peritheciis lateraliter sessilibus, coccineis, ovoideis, obscure papillatis, levibus, dein collabentibus, usque ad 1 mm. d.; ascis clavatis, 8-sporis, obtusis; sporidiis oblonge fusoideis, utrinque subobtusiusculis, medio 1-septatis constrictis, flavo-brunneis, 20-30 × 6-10, stromatibus conidiophoris haud conspicuis.

Hab. in trunco emortuo Caricæ, Cachoeira, Rio Juruá Amazoniæ. — A *C. mauritiicola* sporidiis multo majoribus dignoscitur. *C. Heinesii* P. Henn. ob sporidia constanter hyalina a typo differt et nunc *Corallomycetella Heinesii* P. Henn. vocatur.

Sect. 5. Phæodidymæ.

SPEGAZZINULA Sacc. — Syll. II p. 537.

1. **Spegazzinula juglandina** v. Höhnel in Ann. Mycol. 1903, I, p. 394. 2808
— Peritheciis in cortice leviter tumefacto immersis, sparsis v. ad 2-3 concrescentibus, 300-450 × 200-250, ostiolo crassiusculo, papillato-applanato, peridermium perforantibus; tunica 20-30 μ. crassa, dilute brunnea, carnoso-membranacea, e cellulis distinctis, brunneis, subtiliter tunicatis composita; nucleo pallido v. roseo; ascis pedicellatis, late clavatis, membrana mox mucoso-diffluente præditis, 90-110 × 22-25; paraphysibus hyalinis, septatis, longissimis 5-10 μ. crassis, guttulis repletis, obvallatis; sporidiis octonis, bi-triseriatis, levibus, subtiliter tunicatis, 20-22 × 12-13, utrinque acutiusculis, late ellipticis v. subfusoideis, loculo infero semper hyalino, multo minore, 4-5 μ. longo, loculo supero primum roseo, demum dilute ochraceo, crassius tunicato, 1-guttulato.

Hab. in ramulis subvivis Juglandis regiæ, Jablaniza Herzegovinæ.

Sect. 6. Hyalophragmiæ.

CESATIELLA Sacc. — Syll. II p. 557.

1. **Cesatiella Rehmiana** v. Höhn. Ann. Mycol. 1904, p. 39. — Stro- 2809
matibus effusis, carnosis, tenuibus, hinc inde parum distinctis, in cortice immersis, peridermio secedente subsuperficialibus, ex pallide ochraceo nigrescentibus; peritheciis in stromate immersis, so-

litariis v. ad 2-5 aggregatis, sphæroideis, plerumque leviter applanatis, distincte papillatis, 200-500 μ. latis; nucleo sordide carneo-roseo; tunica carnosula, 20-25 μ. crassa, ochracea, contextu plectenchymatico-fibroso; ascis cylindraceo-clavatis, in basi abrupte stipitatis, sæpe curvulis, tenuiter tunicatis, apice rotundato-truncatis, 74-105 × 11-14, paraphysibus numerosis, longis, filiformibus, minute guttulatis, coalescentibus obvallatis; sporidiis hyalinis, catervatim dilute roseis, octonis, biseriatis, utrinque acutiuscule rotundatis, plus minus curvulis, membrana tenui farctis, 5-cellularibus, cellulis extimis quam mediis duplo longioribus, 23-39 × 3 ½-7.

Hab. in ramulis siccis Fraxini excelsioris ad Jablaniza Herzegovinæ. — *Cesatiella selenospora* (Otth) v. Höhn. Ann. Myc. 1904, p. 41. Ita vocanda, teste v. Höhn. l. c. esset *Cladosphæria selenospora* Otth seu *Ophiomassaria selenospora* (Otth) Jaczenski — Syll. XI p. 353 — ob perithecii contextum molliusculum, carnosum brunneum v. flavo-brunneum; sed nova epicrisis necessaria videtur ad exemplaria vegeta speciei post Otthium (1868) non repertæ.

DEBARYELLA v. Höhn. Ann. Mycol. 1904, p. 274 (Etym. a Magistro Botanices Ant. de Bary). — Perithecia molliuscula, alba v. hyalina, in aliis Pyrenomycetis parasitica. Asci cylindracei, 8-spori, paraphysati. Sporidia oblonga, 4-cellularia, hyalina. — *Passerinulæ* analogum genus.

1. **Debaryella hyalina** v. Höhn. l. c. — Peritheciis conoideo-oblongis, 2810
200 × 140, ex hyalino flavidulis, minute prosenchymaticis, collo-longiusculo, 50-60 × 40, parallele parenchymatico, apice pertuso ornatis, matrici omnino immersis et vix ostiolo emergentibus; ascis copiosissimis cylindricis, 130-160 × 10-12 apice rotundatis, tenui-tunicatis, breve stipitatis; sporidiis octonis, monostichis, fusoideis, utrinque obtusiusculis, 21-26 × 6-7, hyalinis, 4-locularibus, grosse 4-guttatis, rectis curvulisve; paraphysibus gracilibus.

Hab. in cavitate peritheciorum Eutypæ scabrosæ, Dachsbauberg Pfalzau, Wiener Wald Austriæ.

CALONECTRIA De Not. — Syll. II p. 540, IX p. 982, XI p. 363, XIV p. 647, XVI p. 593.

1. **Calonectria Coffeæ** A. Zimm. in Centr. f. Bakter. Paras. 1901, n. 4, 2811
p. 139. — Peritheciis vulgo dense gregariis, superficialibus, globosis, læte flavis, ostiolo papillato atro-cyaneo, 0,26-0,3 mm. diam.;

ascis tetrasporis; sporidiis utrinque obtusulis, leniter curvis, hyalinis v. dilute brunneolis, 4-cellularibus, 21 × 5,4–6,3.

Hab. ad corticem Coffeæ arabicæ, Buitenzorg Javæ.

2. **Calonectria cremea** A. Zimm. in Centr. f. Bakter. Paras. 1901, n. 4, p. 140, fig. 9. — Peritheciis superficialibus, in greges plerumque approximatis, globosis, læte cremeo-flavis, 0,2 mm. diam., ostiolo prominulo, achromo; ascis clavatis, breve crasseque noduloso-stipitatis, 4-sporis aparaphysatis; sporidiis tereti-oblongis, utrinque rotundatis, leniter curvis, 4-cellularibus, ad septa leviter constrictis, hyalinis, 23–25 × 7-8. 2812

Hab. in fructibus emortuis Theobromæ Cacao, Buitenzorg Javæ.

3. **Calonectria Blumenaviæ** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 6. — Peritheciis sparsis, ovoideis, apice papillatis, flavidis vel dilute brunneolis, levibus 200–210 × 150–180; ascis clavatis v. fusoideis, rectis v. curvulis, apice obtusiusculis 35–60 × 9–12, octosporis; sporidiis oblique monostichis vel subdistichis, oblonge fusoideis, sigmoideo-flexuosis, utrinque acutiusculis 5–7-septatis, haud constrictis 20–30 × 3,5–4, hyalinis, levibus. 2813

Hab. in caule Bambusarum, St. Catharina Brasiliæ austr.

4. **Calonectria Höhnelii** Rehm apud v. Höhn. in Ann. Mycol. 1904, p. 43. — Peritheciis dispersis et singulatim in centro mycelii tenuis, rosei vel sanguinei, ex hyphis radiatim expansis formati et maculas hypophyllas, vix ½ mm. latas præbentis sessilibus, depresso-globulosis, supra glabris, infra pilosis, poro vix conspicuo, membranaceis, sanguineis, demum fuscescentibus, 150–300 μ. latis, in sicco collabentibus, contextu parenchymatico; ascis clavato-fusiformibus, breve noduloso-pedicellatis, 56–76 × 9–10, octosporis; sporidiis di-tristichis, fusoideis, utrinque acutis, rectis v. subcurvulis, 4-cellularibus, haud constrictis, hyalinis, 20 × 3-4; paraphysibus copiosis, subtilibus, filiformibus, ascos superantibus. 2814

Hab. in pagina inferiore foliorum Psidii spec. prope Petropolin, Rio de Janeiro Brasiliæ, mense Augusto 1899 (de Höhnel).

5. **Calonectria Meliæ** A. Zimm. Centr. f. Bakter. Paras. 1901, n. 3, p. 106, fig. 7-8. — Peritheciis subglobosis, confertis greges 1–3 m.m. lat. formantibus, flavidis, pulvereis, 0,2-0,3 mm. diam., ostiolo prominenti achromo; ascis tereti-clavatis 10 μ. long. 4-sporis; sporidiis hyalinis, rectis curvulisve, oblongis, utrinque rotundatis, 28–32 × 9-12, plerumque quadrilocularibus, rarius 5-6-locularibus. 2815

Hab. in trunco emortuo Meliæ argutæ in hortis Buitenzorg

Javæ. — Ante perithecia evolvitur forma conidica *Fusarii* speciem sistens: hyphis fertilibus verticillato-ramosis, conidiis cylindraceis parum curvis, 6-8-cellularibus 46-64 × 5,3-6,5. A *C. cucurbitula* ascis 4-sporis; sporidiis majoribus distincta.

6. **Calonectria intermixta** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 6. — Peritheciis sparsis v. aggregatis, ovoideo-subglobosis, papillatis, rufo-brunneis ca. 200-300 μ. diam., contextu pseudoparenchymatico, flavo-brunneo; ascis clavatis v. subfusoideis, apice subobtusis 60-80 × 15-20, octosporis; sporidiis fusoideis oblongis, curvulis v. sigmoideis, utrinque acutiusculis 5-10 septatis, haud constrictis, hyalino-flavidulis 35-50 × 6-8. 2816

Hab. in ramis corticatis, intermixtis Eriosphæra spec. et Ophioceratis spec., St. Catharina Brasiliæ austr.

7. **Calonectria ornata** Annie L. Smith. Journ. Linn. Soc. XXXV, p. 18, tab. III, fig. 9-10 (extr.). — Syll. XVI, p. 1141 (nomen). — Peritheciis minutis, sparsis, circa 300 μ. latis, aurantiacis, superficialiter cellulis prominentibus vestitis; ascis cylindraceo-fusiformibus, apice angustioribus, deorsum attenuatis, breviter pedicellatis 180-200 × 20-30; sporidiis elongatis, ascis fere æquilongis, 10-pluri-septatis, viridi-hyalinis. 2817

Hab. in ramis in insula Dominica Indiæ occid.

8. **Calonectria vermispora** Mass. et Crossl. in the Natur. 1904, p. 4. — Peritheciis gregariis vel sparsis, globoso-conoideis, carneo-rufescentibus, cellulis rotundatis contextis 0,5 mm. diam., pilis hyalinis apice acutis, brevibus, 80-100 × 8, sparsis vestitis; ascis mox evanidis; sporidiis elongato-fusoideis vel vermiformibus, leniter sigmoideis, hyalinis, 12-24-septatis, 60-100 × 8-10. 2818

Hab. in truncis decorticatis, dejectis, Hardcaste Britanniæ (J. Needham).

9. **Calonectria** (Chiajæa) **Atkinsonii** Rehm, Ann. Mycol. 1904, p. 178. — Peritheciis gregariis, sessilibus, globoso-conoideis, in papillulam nigram protractis, extus primitus furfuraceis, flavo-fuscidulis, demum nigricantibus, parenchymatice contextis, extus hyphis nonnullis brevibus fuscis 3-4 μ. crassis, conoidia oblonga, fusca, 1-cellularia, 7 × 3-5 gerentibus, obsessis, 500 μ. diam.; ascis clavatis, apice rotundatis, crasse tunicatis 90-100 × 15-17, octosporis; sporidiis primitus fusoideis, dein superiore dimidia parte crassiore, transverse 2-demum 3-septatis, medio subconstrictis, rectis, hyalinis, denique fuscidulis, 27-33 × 8-9, distichis; paraphysibus filiformibus 3 μ. crassis. 2819

Hab. ad corticem, Mac Kinney Glon Amer. bor. (RITERS).

PARANECTRIA Sacc. — Syll. II p. 552, IX p. 987.

I. *Eu-Paranectria.*

1. **Paranectria Pritzeliana** P. Henn. in Hedw. 1903. p. (79). — Peritheciis aggregatis, subglöboso-ovoideis, cinnabarinis, dense furfuraceo-squamosis, hyphis ca. 25–45 × 3, apice subcinereo papillatis, ca. 200-250, contextu cellulis rotundato-polyhedricis, ca. 15-20 μ. diam., coccineis; ascis fusoideis, utrinque subacutiusculis, octosporis, 60-80 × 14-20; sporidiis conglobatis vel subtristichis, fusoideo-cylindraceis, 3-septatis haud constrictis, 30-42 × 4-5 hyalinis, basi vel utrinque setulis filiformibus 30-45 × 2. 2820

Hab. in truncis emortuis Lianarum, ad fl. Russel, N. Queensland Australiæ (PRITZEL).

II. *Paranectriella* P. Henn. Perithecia hypostromate fulta.

2. **Paranectria stromaticola** P. Henn. in Engl. Bot. Jahrb. 1903, p. 50. — Mycelio albido, effuso, arachnoideo, hyphis repentibus, septatis, 3-4 μ. cr., hyalinis; peritheciis sparsis, subglobosis, pallide flavidis, membranaceo-molliusculis, cellulosis, 150-200 μ. diam.; ascis fasciculatis, clavatis, apice tunicato-rotundatis, octosporis, 65-80 × 13-18; sporidiis oblique monostichis vel distichis, lanceolatis, subovoideo-fusoideis, hyalinis, 3-septatis, 13-18 × 6-8, longo utrinque rostratis, rostro superiori oblique conoideo, ca. 4-6 μ. longo, rostro inferiori oblonge setaceo 15-20 μ. longo, hyalino. 2821

Hab. in foliis Berliniæ spec.?, Ost Usambara Africæ orient. (ZIMMERMANN).

3. **Paranectria juruana** P. Henn. Fungi Amaz. II. p. 245, tab. IV, fig. 8. — Stromatibus ceraceis plerumque in Dothideacea parasitantibus, pulvinato-effusis, byssinis, albidis, usque ad 1 mm. diam.; peritheciis aggregatis superficialibus, ovoideis, subpapillatis, collabentibus, flavidulo-subincarnatis, 120–150 μ.; ascis clavatis, obtusis, 8-sporis, 70–100 × 8-12; sporidiis oblique monostichis v. subdistichis, subfusoideis, hyalinis, 3-septatis, 10-12 × 4-5, utrinque rostratis, rostris filiformibus, curvulis ca. 6-8 μ. longis. 2822

Hab. in foliis Miconiæ ad stromata Auerswaldiæ Miconiæ Juruá-Miry Rio Juruá Amazoniæ. — A specie precedente omnino distincta

BROOMELLA Sacc. — Syll. II p. 557, IX p. 988, XI p. 364, XIV p. 650.

1. **Broomella Ichnaspidis** A. Zimm. Centr. f. Bakter. Paras. II, Abth. 1901, VII. p. 874, f. 3 — Stromate parasitico, carnoso, pustuloso, extus subhyalino, intus sanguineo; peritheciis in quoque stromate pluribus, usque medietatem immersis, brunneis, subglobosis vertice dein apertis; ascis cylindraceis, leviter curvis, 8-sporis, 95-120 µ. long.; sporidiis clavato-bacillaribus, hyalinis, in asco dilute brunneolis, usque 16-locularibus, non constrictis, sæpe curvulis (in articulos, ut videtur, non dilabentibus). 2823

Hab. parasitice in Ichnaspide filiformi ad folia Elæis et Coffeæ liberiæ pr. Buitenzorg Javæ — Var. **major** Zimm. l. c. — A typo differt ascis 170 µ. longis, sporidiis æque bacillaribus non clavatis usque 155 µ. longis. — Parasitice in Diaspidis sp. ad folia Pierardiæ pr. Buitenzorg (Raciborski).

GIBBERELLA Sacc. — Syll. II p. 552, IX p. 988, XI p. 363, XIV p. 649, XVI p. 599.

1. **Gibberella Saubinetii** (Mont.) Sacc. — Syll. II, p. 554. — **var. Calami** P. Henn. in Hedw. 1903, p. (79). — Peritheciis gregariis, subconoideis, ca. 150-180 µ. diam., atro-violaceis; hyphis hyalino-fuscidulis, septatis, ca. 5 µ. cr.; ascis clavatis ca. 70 µ. long. p. sporif. 30-50 × 3-10; sporidiis distichis, fusoideis, curvulis, 3-septatis, hyalinis 20-23 × 4-4,5. 2824

Hab in foliis Calami spec., N. Queensland Australiæ (Pritzel). — Var. **tetraspora** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, pag. 302. — A typo differt præcipue ascis tetrasporis, 66-78 × 9-12; sporidiis triseptatis non constrictis 22-30 × 4,5-6,5, contextu violaceo. — In caulibus emortuis Humuli Lupuli, Luxemburg. — var. **acuum** Feltg. l. c. p. 303. — Differt præcipue habitatione et contextu molliore. — In foliis emortuis Pini silvestris, Luxemburg.

2. **Gibberella Tritici** P. Henn. in Hedw. 1902, p. 301. — Peritheciis innato-superficialibus, sparsis v. dense cæspitosis confluentibusque, 120-180 µ. diam., sessilibus, membranaceis, subglobosis, paullo papillatis, dein collabentibus, atris, rugulosis, contextu pseudoparenchymatico atro-violaceo; ascis subfusoideis, utrinque attenuatis, apice subacutiusculis vel obtusis 38-48 × 6-8, octosporis; paraphysibus filiformibus, hyalinis, 2-3 µ. crassis; sporidiis oblique mono- 2825

stichis vel subdistichis, fusoideis, utrinque acutiusculis, 3-septatis, haud constrictis, hyalinis, 15-21 × 3,5-4,5.

Hab. in caryopsidibus et in glumis Tritici Speltæ, S. Paulo Brasiliæ.

3. **Gibberella cantareirensis** P. Henn. Fungi S. Paulenses III, p. 205. 2826
— Peritheciis cæspitose gregariis submembranaceis, atro-cæruleis, ovoideis, papillatis, ca. 200 μ. diam., contextu cellulis subrotundatis cæruleo-violaceis ca. 12-18 μ.; basi hyphis repentibus, subviolaceis ramosis, 2-5 μ. crassis; conidiis fusoideis, curvulis, 5-septatis 25-30 × 4-5; ascis cylindraceo-clavatis, pedicellatis, 8-sporis, 60-100 × 6-9; sporidiis oblique monostichis v. distichis, fusoideis, utrinque acutiusculis, 3-septatis haud constrictis, hyalino-violascentibus, 20-25 × 4-6.

Hab. in ramis emortuis indet. Serra da Cantareira Brasiliæ. — *G. Saubinetii* affinis sed ascis, sporidiis conidiisque distinguenda.

Sect. 7. **Hyalodictyæ.**

PLEONECTRIA Sacc. — Syll. II p. 559, IX p. 990.

1. **Pleonectria nigropapillata** Starb. in Arkiv. för Botan. 1904, Band 2, 2827
p. 13, f. 25-28. — Peritheciis e stromate pulvinato intus flavido-ochroleuco v. fere olivascente numerosis, erumpentibus, in cæspitulos subsparsos, versiformes, 2-10 mm. long. densissime aggregatis v. subsolitariis, sphæroideis, conico-papillatis, testaceo-melleis vel avellanaceo-umbrinis, primo pallide furfuraceis demum nigricantibus rugosiusculis 250-300 μ. diam , vertice semper nigro; contextu trans lucem ferrugineo-fulvescente; ascis clavatis, apice rotundatis, breve pedicellatis, 60-75 × 12-19, octosporis, filiformi-paraphysatis; sporidiis di-monostichis vel conglobatis, initio grumosis dein muriformi-septatis, ex hyalino flavidulis, ellipsoideis v. ovoideis, subinde anguloso-sphæroideis v. elongatis, ad septa vix v. leniter constrictis, 12-15 × 5-7,5.

Hab. ad cortices, San Antonio prope Asuncion, Paraguay. — *Pleon. denigratæ* affinis.

2. **Pleonectria coffeicola** A. Zimm. Centralbl. f. Bakter. Abt. 1902, 2828
VIII, p. 183. — Peritheciis superficialibus in stromate tenui, subhyalino sessilibus, globosis, papillatis, brunneolis, $^1/_3$ mm. diam.; ascis 8-sporis, crassis; sporidiis falciformibus, utrinque obtusis, hyalinis, circ. 20-septatis parceque muriformibus, ad septa con-

strictulis 100 × 12, articulis sæpe inæqualiter latis, non raro quibusdam secedentibus.

Hab. in foliis vivis Coffeæ libericæ, Buitenzorg Javæ.

MEGALONECTRIA Speg. — Syll. II p. 560, IX p. 992, XVI p. 599.

1. **Megalonectria pseudotrichia** (Schwein.) Speg. — Syll. II, p. 560. — 2829
var. **australiensis** P. Henn. in Hedw. 1903, pag. (79). — Ascis conspicue angustioribus nempe 12-17 μ. cr.; sporidiis minoribus, 14-20 × 7-10, 3-5-septato-muriformibus, ellipsoideis vel perfecte maturis fusoideis. Cetera eadem.

Hab. in truncis emortuis in silvis Cairus, N. Queensland Australiæ (Pritzel).

Sect. 8. Phæodictyæ.

FERACIA Roll. Bull. Soc. Mycol. 1905, p. 28 (Etym. *ferax* ob ascos multisporos). — Perithecia erumpenti-superficialia, sparsa v. gregaria, membranacea (atro-viridia) ostiolo prædita. Asci clavati, paraphysati, poly-(24)-spori. Sporidia ellipsoideo-oblonga, 3-pluriseptato-muriformia, colorata. — Ob perithecia madore mollia et atro-viridia genus videtur Hypocreaceis adscribendum. In tab. comp. (vol. XIV, p. 25) casulam 219 inter Hypocreaceas occupabit.

1. **Feracia balearica** Roll. l. c. tab. 2, fig. 1. — Peritheciis minu- 2830
tissimis, globulosis, atro-viridibus, nitidis, 130-150 μ. diam., ostiolo aperto vix prominulo instructis, celluloso-membranaceis, per fibras lignosas erumpentibus, e madore mollibus, siccis fragilibus, e mycelio brunneolo septatis enatis; ascis crebris fusoideo- v. clavato-oblongis, breve stipitatis, 40-50 × 10-14, paraphysibus plus minus ramosis, filiformibus, hyalinis obvallatis, 24-sporis; sporidiis inordinate polystichis, ellipsoideo-oblongis utrinque rotundatis, e viridi-glauco fuscidulis, 10 × 4, 3-septatis, non constrictis, 1-2 longitrorsum v. oblique partitis.

Hab. in ramis emortuis denudatis Buxi balearicæ, Como Negra, Soller ins. Balearium.

Sect. 9. Scolecosporæ.

OPHIONECTRIA Sacc. — Syll. II p. 563, IX p. 994, XI p. 365, XIV p. 651, XVI p. 601.

1. **Ophionectria hyphicola** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 7. — Peritheciis sparsis v. aggregatis, ovoideis; hyphis fusidulis, septatis ramosis 3,5–7 μ cr. circumdatis, apice subpapillatis dein collabentibus, luteo-brunneis, levibus, ca 200-300 × 180-230 μ. diam.; ascis oblonge clavatis vel subfusoideis, apice obtusiusculis, octosporis, 90-120 × 10-13; sporidiis filiformibus utrinque acutiusculis, dexuosis, pluri-septatis 70–80 × 3,5 hyalinis 2851

Hab. in ligno quercino emortuo, St. Catharina Brasiliæ austr.

2. **Ophionectria Theobromæ** Pat. in Duss, Enum. Champ. Guadel. 1903, pag. 81. — Peritheciis in subiculo mycelico superficiali rufo sitis, ovoideo-oblongis, erectis, vertice truncatis, 360 × 260, coccineis, rugulosis; ascis 180 × 25; sporidiis attenuato-fusoideis 160 × 6, incoloribus, 5-6-septatis. 2852

Hab. in cortice putri Theobromæ Cacao, Honëlmont Guadalupe (Duss).

3. **Ophionectria belonospora** (Schrœt.) Sacc. — Syll. XI, p. 365. — var. **unicaudata** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 308, ut *Calonectria*. — A typo differt sporidiis 33–50 × 3–4,5, rarius 80 × 6, basi longe appendiculiformi-tenuatis. 2853

Hab. in caulibus emortuis Clematidis Vitalbæ, Luxemburg.

4. **Ophionectria foliicola** A. Zimm. in Centralbl. f. Bakter. 1902, VIII, p. 182. — Peritheciis in superficie mycelii tenuissimi sessilibus, applanatis, papillatis, cinnamomeis, glabris, 200-250 μ. lat., 150 μ. alt.; ascis octosporis 120 μ. long.; sporidiis fasciculatis rectis vel curvulis, c. 18-cellularibus, 100 × 5, hyalinis, cellulis extimis minutis. 2854

Hab. in foliis vivis Coffeæ libericæ, Buitenzorg Javæ.

TORRUBIELLA Boud. — Syll. IX p. 994, XI p. 365.

1. **Torrubiella rostrata** P. Henn. in Hedw. 1902, p. 167. — Mycelio effuso, crustaceo, albido; peritheciis gregariis interdum confluentibus v. sparsis, subsessilibus v. stipitatis ovoideis v. subpiriformibus, 400-500 μ. diam., pallidis, pilis simplicibus v. ramosis hyalinis 30-100 × 3-4, intus guttulatis, obtusis vestitis, apice 1-3 subulato-rostratis, rostro ca. 0,5-5 mm. longo, basi ca. 100 μ. cr., apice subgloboso, sæpe recurvato ca. 140 μ. cr., sursum conidiophoris ovoideis apicularis tectis; conidiis ellipsoideis 3,5 × 3, flavidulis; ascis cylindraceis, apice obtuso-rotundatis, tunicatis 4-8-sporis, ca. 300 × 4-4,5; sporidiis longitudine asci, filiformibus, hyalinis, dense guttulatis v. septulatis, ca. 1 μ. cr. 2855

Hab. in Noctua, Surinam Americæ.

2. **Torrubiella luteo-rostrata** A. Zimm., Centralbl. f. Bakter. u. Paras. II, Abth. VII, 1901, p. 872. — Stromate explanato, subcirculari, 6 mm. diam., intus brunneo-rubescente, extus albo, tenui-tunicato; peritheciis numerosis supra stroma plerumque aggregatis, rostel latis, rectis v. curvulis, 0,4-0,8 mm. long., basi 150 μ. lat., sanguineis, apice flavis, filamentis mycelicis rubescentibus conspersoasperulis; ascis filiformibus, 400 × 4, 8-sporis, apice crasse tunicatis; sporidiis in asco spiraliter convolutis, 1 μ. cr., ut videtur, continuis nec in articulos secedentibus. 2836

Hab. in Coccide quodam in silvis pr. Buitenzorg Javæ. — Affinis *Torr. rubræ*, a qua peritheciis in quoque stromate numerosis et luteo-rostratis distinguitur.

HYPOCRELLA Sacc. — Syll. II p. 579, IX p. 1002, XI p. 367, XIV p. 653, XVI p. 603.

1. **Hypocrella Zimmermanniana** P. Henn. F. javanici novi, in Hedw. 1902, p. 142. — Stromatibus rotundato-pulvinatis, applanatis, substipitatis 2-2,5 mm. diam., ochraceo-viridulis v. rufo-brunneis, papillato-ostiolatis, basi attenuato-substipitatis; peritheciis immersis, subglobosis; ascis clavato-fusoideis, apice obtusiusculis, 70-100 × 4-5,5; sporidiis filiformibus pluriseptatis, 60-80 × 1,5 hyalinis. 2837

Hab. in foliis Zingiberacearum, Depok Javæ.

2. **Hypocrella Sloaneæ** Pat. in Duss, Enum. Champ. Guadal. 1903, p. 80. — Stromate ochraceo-albido, hemisphærico, 2-5 mm. diam., peritheciis ovoideis, concoloribus, exsertis tecto, ostiolis brunneolis; ascis longissimis, 12-15 μ. cr.; sporidiis linearibus, mox in articulos incolores, fusoideos, 9-12 × 2-3 dilabentibus. 2838

Hab. in pag. inf. foliorum Sloaneæ spec., in silva Bains-Jaunes Guadalupa.

3. **Hypocrella juruana** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 61. — Stromatibus phyllogenis, hypophyllis, sparsis vel subaggregatis, subdiscoideo-pulvinatis, convexis v. applanatis, corneis, rufo-brunneis 1-2 mm. diam., superne granulato-ostiolatis, subiculo nullo, intus pallidis; peritheciis omnino immersis, oblongis; ascis cylindraceis, apice rotundato-tunicatis, 1-subseptatis, basi attenuatis, curvulis ca. 150-200 × 4-5; sporidiis filiformibus, guttulatis, hyalinis, longitudine ascorum, ca. 1 μ. crassis. 2839

Hab. in foliis coriaceis, putrescentibus, Rio Juruá Brasiliæ

4. **Hypocrella amazonica** P. Henn. Fungi Amaz. II, p. 246. — Stromatibus molle ceraceis hypophyllis sparsis vel aggregatis, rotun- 2840

dato-pulvinatis, pallide isabellinis, verrucoso-tuberculatis, obscure ostiolatis, ca. 1-3 mm. diam.; peritheciis immersis, oblonge ovoideis vel lageniformibus; ascis cylindraceo-subfusoideis v. clavatis apice rotundato-capitulatis, 140-200 × 4-5 $^1/_2$; sporidiis filiformibus, parallelis pluriseptatis, cellulis 4-5 × 1, vix dilabentibus.

Hab. in foliis Sterculiaceæ cujusdam, Iquitos Perù. — Nonnullis notis ad *Möllériellam flavam* accedit.

5. **Hypocrella marginalis** P. Henn. in Engl. Bot. Jahrb. 1903, p. 49. — 2841
Stromatibus marginicolis, hemisphærico-pulvinatis v. subglobosis, castaneis, 0,5–1 mm. diam., ambitu albido byssinis, corneis, levibus; peritheciis immersis; ascis cylindraceis, apice obtuso rotundatis, octosporis, 90–130 × 8–10; sporidiis parallelis, filiformibus, pluriseptatis 70-90 × 2,5, cyanescentibus, cellulis vix dehiscentibus, oblonge cuboideis 2,5–4 × 2,5.

Hab. in foliis Garciniæ spec., Ost-Usambara Africæ orient. (Engler).

6. **Hypocrella rubiginosa** Annie L. Smith, Journ. Linn. Soc. XXXV, 2842
pag. 18, tab. III, f. 11-14 (extr.). — Syll. XVI, pag. 1141 (nomen). — Stromate pulvinato, rubiginoso, circa 5 mm. lato, basi late affixo, rugoso, peritheciis prominulis multi-punctato; peritheciis elongatis, angustatis, circa 1 mm. longis, 250 μ. latis, basi rotundatis, deorsum attenuatis, ostiolum versus attenuatis; ascis octosporis, apice rotundatis, deorsum attenuatis 500 × 8; sporidiis filiformibus, leviter curvulis v. rectis fere ascis æquilongis, pluriseptatis, hyalinis.

Hab. ad vetustum specimen Hypoxyli, in insula Dominica Indiæ occid.

7. **Hypocrella Raciborskii** A. Zimm. Centr. f. Bakter. u. Paras. 1901, 2843
II, Abth. p. 875, fig. 4. — Stromate libero, disciformi, carnoso, 5 mm. diam., albo v. pallide flavo, centro valde incrassato partim conidiophoro, *Aschersoniæ* speciem sistente; conidiis fusoideis homogeneis vel guttulatis, 11-13 × 1,5-2, paraphysibus prælongis intermixtis; peritheciis in quoque stromate numerosis (50 et ultra) omnino immersis; ascis longe cylindraceis apice incrassatis, 8-sporis, 220 × 10; sporidiis filiformibus ascum æquantibus, 2 μ. cr., parallelis sæpe contortis, in articulos, ut videtur, non dilabentibus; paraphysibus nullis.

Hab. parasitice in Coccide quodam ad folia Citri ad pedem M. Merapi in ins. Java (Raciborski).

ECHINODOTHIS Atkins. Bull. Torrey bot. Club 1894, p. 224: cfr. Sacc. Syll. XIV p. 686, n. 2626 (Etym. *echinos* erinaceus et *dothis* pro Dothidea). — Stroma subcarnosum, læte coloratum, tuberculiforme vel disciforme; perithecia omnino in stromate superficialia, subcylindracea et hinc faciem echinulatam reddentia. Asci cylindracei octospori; sporidia filiformia, septata, subhyalina.

1. **Echinodothis tuberiformis** (B. et R.) Atkins. l. c. et Bot. Gaz. 1891, p. 281, tab. XXV, sub *Hypocrella*. — Ita vocanda *Hypocrea tuberiformis* B. et R. — Syll. II, p. 534 et XI, p. 367.
2. **Echinodothis Gaduæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 2844
p. 61, c. ic. — Stromatibus culmicolis carnosis v. ceraceis, firmis, subtuberosis, rugoso-tuberculatis ca. 1 cm. longis, 5-7 mm. crassis, pallide fuscidulis; peritheciis liberis breve cylindraceis, apice rotundatis, papillatis, flavidis vel succineis 0,3-8 mm. longis, 0,2-0,3 mm. crassis; ascis cylindraceis, apice capitellato-incrassatis, ad basim paullo attenuatis, 8-sporis, 180-220 × 5-6; sporidiis filiformibus pluriseptatis, hyalinis, longitudine ascorum, ca. 3-3½ μ. crassis.

Hab. in culmis tenuibus Gaduæ sp., Rio Juruá, Juruá-Miry Amazoniæ. — Affinis *Ech. tuberiformi*. Ab *Hypocrella* peritheciis omnino liberis diversa.

ASCOPOLYPORUS A. Möll. — Syll. XVI p. 605.

1. **Ascopolyporus Gollmerianus** P. Henn. Fungi blumenavienses II, 2845
in Hedw. 1902, p. 8. — Stromatibus corneis duris, subglobosis v. subhemisphæricis, primo pallidis, superne sterilibus rotundatis, dein cremaceis subtomentosis, postice interdum plicato-sulcatis, inferne fertilibus applanatis v. concavis, pallidis dein subfuscidulis, marginatis, punctato-poroideis, ca. 1-2,5 cm. diam., intus pallidis, subconcentrice brunneolo-zonatis pro parte cavernosis; peritheciis immersis, subovoideis apertis ca. 0,5 mm. longis; ascis cylindraceo-clavatis, apice rotundatis, basi paullo attenuatis 150-200 × 5, octosporis; paraphysibus filiformibus, hyalinis, ca. 2 μ. cr.; sporidiis filiformibus, parallelis, longitudine asci, septatis dein in cellulas 4 μ. longis, 0,6-1 μ. cr., secedentibus, hyalinis.

Hab. in parvulis culmis Bambusarum, Venezuela Amer. austr.

FLEISCHERIA Penz. et Sacc. in Malp. 1901, p. 230 (Etym. a cl. viro Max Fleischer, muscorum præprimis aliarumque cryptogamarum

sollerti scrutatore). — Stroma tuberoso-sphæroideum, biogenum, majusculum, basi applanata sessile, mox sclerotiaceo-corneum, durum. Perithecia omnino immersa, globoso-piriformia, ostiolo papillato vix emergente. Asci tereti-elongati, aparaphysati. Sporidia polysticha, filiformia, hyalina, mox in articulos bacillares utrinque obtusos dilabentia. — Genus insigne ab *Hypocrella, Mölleriella* et *Ascopolyporo* stromate mox indurato, sclerotiaceo-corneo distinguendum.

1. **Fleischeria javanica** Penz. et Sacc. l. c. et Icon. fung. Jav. t. XL, f. 2. — Stromatibus laxe gregariis verrucosis, glabris, totis rufo-brunneis, 8-10 mm. altis et lat., basi planis punctoque centrali umbilicato, matrici affixis; peritheciis remotiusculis, piriformibus 350-380 μ. diam., in collum breve ostiolumque papillatum parum emergens productis, tenui-membranaceis; ascis anguste fusoideis, apice obtuse tenuatis, deorsum crasse sensim stipitatis, 140-150 × 7, aparaphysatis; sporidiis polystichis, initio filiformibus mox in articulos bacillares, numerosissimos, rectos, utrinque rotundatos 14-15 × 1,7-2, hyalinos dilabentibus. 2846

Hab. ad ramos adhuc vivos arboris indeterminatæ, Tjibodas, Java (M. Fleischer). — Stromata matrice avulsa relinquunt arcolam albidam cum cicatricula centrali.

CLAVICEPS Tul. — Syll. II p. 564, IX p. 998, XVI p. 609.

1. **Claviceps cinerea** D. Griff. in Bull. Torr. Bot. Cl. 1901, XXVIII, pag. 240, fig. 1-2. — Sclerotio clavato, superne conico, erecto v. curvato vel contorto, 1,5-3 cm. longo, basi 1,75-2,5 mm. diam., viscido, in glumis permanente, levi, lucenti, nigro, reticulato; stromatibus erectis, e stipite brevi, cylindrico vel anguste fusiformi, firmo fere albido ortis, subglobosis, inferne applanatis subtus excavatis, 1,75-2,75 mm. diam., sublevibus, griseo-pallidis v. cinereis, viscidulis, ab ostiolis prominulis obscurioribus punctulatis; peritheciis subpiriformibus, stipatis 190-225 × 60-90; ascis octosporis, fasciculatis cylindraceis, longe pedicellatis, superne rotundatis 135-150 × 4-5; sporidiis parallele dispositis, filiformibus guttulatis 100-120 × 1-1,5. 2847

Hab. in spicis Hilariæ muticæ et H. conchroidis, Cochise, Arizona Amer. bor.

2. **Claviceps? caricina** Griffiths, Bull. of the Torr. Bot. Club 1902, p. 300. — Mycelio in parte centrali culmorum evoluto sclerotia longitudinaliter striata, nigra 1,5-5 cm. long., 1,5-5 mm. cr. effor- 2848

mante; sclerotiis intus albidis; contextu æqualiter denso ex hyphis subseptatis, hyalinis intricatis, crasse tunicatis composito; statu aschophoro ignoto.

Hab. in culmis Caricis nebraskensis, Andrews, Oregon Amer. bor. (Griffiths et Morris). — In parte super. culmorum adsunt sori elongati nigro-erumpentes (structura *Glœosporii*, teste auctore), conidiis globosis, hyalinis 1-2 μ. diam.

BALANSIA Speg. — Syll. IX p. 997, XI p. 366, XIV p. 656, XVI pag. 607. — Observante cl. Hennings, genus potius *Dothideaceis* adscribendum.

1. **Balansia chusqueicola** P. Henn. Pilz. Costaric. p. 148. — Stromatibus culmicolis, eos deformantibus margine tenui circumdatisque distanter insertis, subgloboso-depressis v. hemisphæricis lignoso-corneis, atris, paulo rugulosis ca. 05-1 cm. diam.; peritheciis omnino immersis, lageniformibus, atris, vix ostiolatis; ascis cylindraceis, apice rotundatis, 8-sporis, ca. 250-300 × 5-7; sporidiis parallelis longitudine asci, hyalinis, pluriguttulatis vel septatis, ca. 1 ½-2 μ. crassis; contextu atro, duro, corneo. 2849

Hab. in culmis udis Chusqueæ sp. Barba-Vulkan Costarica (C. Hoffmann). — *B. regulari* subaffinis.

2. **Balansia asclerotiaca** P. Henn. Fungi Amaz. II, p. 259, cum icone. — Stromatibus culmicolis, cæspitose erumpentibus, matrice haud sclerotiaca, incrassata nigrificata, sessilibus vel stipitatis, stipite usque ad 2½ mm. longo, 0,3 mm. crasso, tereti, pallide fusco, pruinoso striatulo; capitulis subglobosis, interdum confluentibus, atris, dense verrucoso-ostiolatis, ca. 1 mm. diam.; peritheciis immersis, subovoideis vel lageniformibus; ascis cylindraceis apice attenuatis, subhemisphærico-incrassatis, 1-sulcatulis, ad basin attenuatis, 8-sporis, 150-220 × 3½-4; sporidiis parallelis, longitudine asci, pluriguttulatis vel obsolete septulatis, filiformibus, hyalinis, ca. 0,6-0,8 μ. crassis. 2850

Hab. in culmis Orthocladæ ramifloræ, Juruá-Miry, Rio Juruá Amazoniæ. — A ceteris speciebus præsentia sclerotii mox dignoscitur.

BALANSIELLA P. Henn. in Hedw. 1904, p. 85 (Etym. a *Balansia*, cui affinis). — Stromata stipitato-capitata, pallida, ceraceo-carnosa, e sclerotio plantæ virescentis oriunda. Perithecia stromate immersa subprominula. Asci cylindracei. Sporidia filiformia, septata.

— A gen. *Balansia* præcipue stromate ceraceo carnoso, biogeno nec carbonaceo-corneo mox dignoscenda.

1. **Balansiella Orthocladæ** P. Henn. l. c. *Claviceps pallida* (Wint.) var. *Orthocladæ* P. Henn. in Hedw. 1900, p. 77. — Syll. XVI, p. 610, *Balansia diadema* A. Möll. Ascom. 1901, p. 197. — Syll. XVI, p. 608.

CORDYCEPS Fr. — Syll. II p. 566, IX p. 998, XI p. 366, XIV p. 656, XVI p. 611. — Cfr. Penz. et Sacc. Icon. fung. Jav. t. XXXVIII-XL.

I. *Eu-Cordyceps.*

1. **Cordyceps subpolyarthra** P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 11. — Stromatibus clavatis v. capitulatis 4–12 mm. longis, coccineis, stipite tereti, 0,2-0,4 mm. cr., capitulis subglobosis 1 mm. diam. v. clavatis ca. 3 × 1 mm. diam.; perithecis liberis, conoideis, apiculatis ca. 300-400 × 100-130; ascis cylindraceis apice rotundato-capitatis 180-200 × 3; sporidiis filiformibus, pluriguttulatis vel obsolete septatis ca. 0,7 μ. crassis. 2851

Hab. in foliis Musacearum, St. Catharina Brasiliæ austr.

2. **Cordyceps Fleischeri** Penz. et Sacc. in Malpighia 1901 p. 230, et Ic. fung. Javan. t. XXXIX, f. 4. — Clavato-cylindracea; clava teretiuscula, subæquali, 10-12 mm. longa, 2-3 mm. cr., vivide coccinea, apice longiuscule mucronata, basi a stipite discreta, carnosa, glabra, ostiolis minutissimis asperula, stipite tenuiter cylindraceo, glabro, brunneo, 5–7 cm. longo, 1-1,5 mm. cr.; peritheciis horizontaliter immersis, crebris, elliptico-oblongis, in ostiola punctiformia mox abeuntibus, 380-400 × 110; ascis cylindraceis, prælongis, subsessilibus apice globoso-inflatulis, aparaphysatis, 170-180 × 6, 5-7, octosporis; sporidiis filiformibus, rectiusculis, utrinque obtusulis, multi (18-22)-septatis, 150 × 1,5 hyalinis, articulis 4-4,5 × 1,5. 2852

Hab. in larvis insectorum, Tjibodas, in insula Java (M. Fleischer). — Affinis videtur *C. Barnesii* et *C. Thwaitesii*, sed differt clava coccinea, nec vix rubescente, ostiolis minus prominulis, stipite brunneo etc.

3. **Cordyceps cæspitoso-filiformis** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 11. — Stromatibus cæspitosis, filiformibus, simplicibus v. furcatis, coccineis, apice acutiusculis usque ad 3 cm. longis, 0,5-0,8 mm. cr., flexuosis; peritheciis interrupte gregariis, omnino liberis, ovoideis v. subconoideis, apice obtusiusculis, coc- 2853

cineis vel rufis ca. 300 μ. longis et 200 ca. μ. latis; ascis cylindraceis apice rotundato-capitatis, flexuosis octosporis 150-200 × 4-6; sporidiis longitudinaliter conglobatis, pluriguttulatis, hyalinis ca. 1 μ. crassis.

Hab. in larvis, St. Catharina Brasiliæ austr.

4. **Cordyceps coccinea** Penz. et Sacc. — Syll. XIV, p. 656. — var. **subochracea** Penz. et Sacc. in Malpighia 1901, p. 231. — A typo videtur satis differre peritheciis ex clavula magis emergentibus, stipite paullo breviore, nempe vix 45 mm. longo, colore fungi ochraceo-flavido, nec coccineo prætereaque habitatione. 2854

Hab. in larva quadam Lepidopteri hirsuta, Tjibodas, in insula Java (M. Fleischer).

5. **Cordyceps tarapotensis** P. Henn. Fungi Amaz. II, pag. 246. — Mycelio submembranaceo, effuso, pallido; stromatibus aggregatis v. sparsis, basi interdum fasciculatis, erectis subulatis, 10-16 mm. longis, stipite basi incrassatis, cylindraceo, flavido; clavula ca. 5 mm. longa, 1-1 $^1/_2$ mm. crassa, peritheciis aggregatis omnino liberis, oblongis, ovoideis, apice obscuris, rotundatis, brunneis, 300-350 × 180-200 μ.; ascis cylindraceo-clavatis, apice subglobuloso depressis sulcatis, 8-sporis, 230-280 × 4-6; sporidiis parallelis filiformibus, pluriseptatis, dilabentibus; cellulis subcuboideis, hyalinis ca. 4-5 × 0,8. 2855

Hab. in corpore Bombycinæ sp. Tarapoto, Perù. — *C. isarioidi* et *C. Englerianæ* affinis.

6. **Cordyceps amazonica** P. Henn. Fungi Amaz. II, p. 247, fig. 4. — Stromatibus singularibus, stipitato-erectis, 2 $^1/_2$-3 cm. longis, stipite tereti ca. 2-2 $^1/_2$ cm. longo, 1 mm. crasso, æquali, pallido vel brunneolo, clavula subglobosa 2 $^1/_2$-3 mm. diam., coccineo-fuscidula; peritheciis omnino immersis, ovoideis, punctoideo-ostiolatis; ascis cylindraceo-subclavatis, rotundato-capitatis, sulcatis, ca. 130-150 × 3 $^1/_2$-4; sporidiis filiformibus, parallelis, pluriseptatis; cellulis ca. 10 × 0,5-0,7; conidiis stromate eodem, conidiophoris filiformibus hyalinis ca. 10 μ. longis; conidiis catenulatis, globosis, hyalinis, ca. 1 $^1/_2$ 2856

Hab. in Locusta spec. Juruá-Miry Brasiliæ.

7. **Cordyceps Michaëlisii** Henn. in Hedw. 1902, p. 169. — Stromatibus plerumque cæspitose gregariis, subclavatis 7-18 mm. longis, pallidis; stipite subtereti brevi v. plus minus elongato, levi 0,5-1 cm. longo, 1,5-2 mm. cr.; clavula oblonge, ellipsoidea v. subglobosa, interdum compressa, pallida, 2-8 × 2-7 mm. diam., brunneolo-punctata, ostiolata; peritheciis subimmersis, ovoideis 200 × 120 μ.; 2857

ascis cylindraceis, flexuosis, apice rotundato-tunicatis, basi paullo attenuatis 160-200 × 2,5-3 μ.; sporidiis longitudine asci, filiformibus, pluriguttulatis v. obsolete septulatis 0,6-0,8 μ. cr.

Hab. in chrysalidibus Bombycis, foliis circumdatis. Surinam Americæ merid.

8. **Cordyceps subcorticicola** P. Henn. Fungi blumenavienses II, in Hedw. 1902, pag. 11. — Ascomatibus stipitatis, capitatis; stipite compresso, subclavato, flexuoso, pallido ca. 1 cm. longo, 1-1,5 mm. cr., apice subfurcato vel simplici; capitulis hemisphærico-pulvinatis v. subgloboso-depressis 1,5-2 mm. diam., flavo-coccineis; peritheciis ad marginem subliberis, ovoideis v. subulatis ca. 500-600 × 200 μ. diam., vertice semiimmersis, apiculatis; ascis cylindraceis, apice rotundato-capitulatis, basi attenuatis ca. 220-280 × 3 octosporis; sporidiis filiformibus guttulatis vel septulatis ca. 0,5 μ. crass. 2853

Hab. in larvis emortuis in corticibus arborum, St. Catharina Brasiliæ austr.

9. **Cordyceps Uleana** P. Henn. Fungi Amaz. II, p. 248, tab. IV, fig. 5. — Stromatibus sparsis vel cæspitosis, stipitato-globulosis, aurantiis, ca. 6-8 mm. altis, stipite tereti v. compresso 2-3 mm. longo, 1-2 mm. crasso; clavulis subglobosis interdum botryoso-congestis, 3-5 mm. diam., ruguloso-verrucosis; peritheciis subimmersis oblonge ovoideis 300-350 × 200-250, ostiolis rotundatis; ascis cylindraceo-clavatis, apice obtuse rotundatis sulcatulis, basi attenuatis, 250-300 × 4½-5; sporidiis parallelis filiformibus, pluriseptatis, cellulis 2-3 × 0,6-0,8 dilabentibus. 2859

Hab. in Locustideæ spec., Cerro de Escaler Perù. — *C. Corallomyceti* proxime affinis.

10. **Cordyceps locustiphila** P. Henn. Fungi Amaz. II, p. 247, tab. IV, fig. 3. — Mycelio effuso, pallido; stromatibus gregariis singularibus vel subfasciculatis, clavatis, 1-1½ cm. longis, curvulis, stipitibus subtereti-compressis, flavidis, clavulis obtusis, ca. 0,8-1,2 mm. longis, 2-2½ mm. crassis, subflavido-fuscidulis; peritheciis aggregatis, immersis, ca. 150 μ., oblonge ovoideis, subhemisphærico-ostiolatis; ascis cylindraceo-clavatis apice rotundato-sulcatis, 8-sporis, ca. 150-200 × 3-3½; sporidiis parallelis, filiformibus, plurigutulatis vel pluriseptatis ca. 0,6-0,9 μ. crassis. 2860

Hab. in Locusta spec. Bocca do Tejo, Rio Juruá Brasiliæ. — *C. militari* affinis.

11. **Cordyceps surinamensis** P. Henn. in Hedw. 1902, p. 169. — Stro- 2861

matibus stipitato-capitulatis, ca. 8 mm. longis; stipite tereti, flavo-brunneo, levi, ca. 6 mm. longo, 0,8 mm. crasso, clavula hemisphærica vel subglobosa, superne rugulosa v. levi, flavida, ca. 2 mm diam., ostiolis punctoideis vix conspicuis; peritheciis immersis, ca. 200 μ. diam., ovoideis, olivaceis; ascis cylindraceis, apice rotundatis, basi attenuatis 150 × 3-4; sporidiis filiformibus, pluriguttulatis haud septatis, ca. 1 μ. cr.

Hab. in thorace Ichneumonidæ, Surinam, Americæ.

12. **Cordyceps subdiscoidea** P. Henn. in Hedw. 1902, p. 168. — Stro- 2862
matibus sparsis, stipitatis; capitulo convexo-subdiscoideo, applanato, flavo, ostiolis minute papillatis, obscurioribus, 1,5–2 mm. diam.; stipite tereti, flavo-brunneolo, levi, æquali, ca. 4 mm. longo, 300 μ. crasso; peritheciis immersis, ovoideis, papillatis, ca. 150 μ. diam.; ascis cylindraceis subclavatis 100-130 × 3, octosporis; sporidiis filiformibus, pluriguttulatis, hyalinis, ca. 0,8 μ crassis.

Hab. in thorace Formicæ spec., Surinam Americæ.

13. **Cordyceps miryensis** P. Henn. Fungi Amaz. II, p. 247. — Stro- 2863
matibus sparsis, clavatis, flavidis, 0,6-10 mm. longis, stipite subfiliformi, tereti, 3–5 mm. longo, clavula cylindracea, obtusa rotundata, ca. 3-5 mm. longo, 1-1½ mm. crassa; peritheciis immersis ovoideis, papillato-ostiolatis: ascis cylindraceo-clavatis, apice globuloso-capitatis, sulcatis, 120-150 × 3-3½; sporidiis parallelis, filiformibus, pluriseptatis; cellulis 4–5 μ. longis, 0,5–0,7 μ. crassis.

Hab. in chrysalide Lepidopteri minuti ad folia, Juruá-Miry Rio Juruá Amazoniæ. — Proxime affinis *C. typhuliformi.*

14. **Cordyceps proliferans** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2864
fig. 6 (Hedw. 1904). — Stromatibus singularibus erectis, ca. 4 cm. altis, stipite tereti, subcorneo corticato, atro, 2-2½ cm. longo, ca. 1 mm. crasso, æquali, clavulis subfusoideis, cylindraceis vel compressis, proliferante-furcatis, flavido-stipitatis, subrugulosis, flavidis punctulato-ostiolatis; peritheciis ovoideis, immersis; ascis cylindraceo-clavatis apice capitellato obtusis, sulcatulis, 150-180 × 4–5; sporidiis filiformibus parallelis in cellulas subfusoideas, hyalino-cyanescentes 6-8 × 0,7–0,8 dilabentibus.

Hab. in corpore emortuo Dinoponeræ (Formicæ) grandis, Marmellos Rio Juruá Amazoniæ. — *C. myrmecophilæ* affinis.

15. **Cordyceps joaquiensis** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2865
fig. 7. — Stromatibus cæspitosis vel singularibus, 6-8 cm. longis, cylindraceo-fusoideis, superne simplicibus vel ramosis, fusco-olivaceis, stipite carnoso, farcto, tereti, flexuoso, clavula tereti, obtusa,

ca. 1-1 $^1/_2$ cm. longa, 2 $^1/_2$-3 mm. crassa, punctoideo-ostiolata; peritheciis omnino immersis, ovoideis v. oblongis; ascis cylindraceis apice rotundatis incrassatis, sulcatiusculis, 150-200 × 4-4 $^1/_2$; sporidiis filiformibus, parallelis, pluriguttulatis v. septatis, hyalino-subfuscidulis ca. 1 μ. crassis.

Hab. in larvis Coleopteri? cujusdam, Sao Joaquin Rio Negro Amazoniæ. — *C. submilitari* affinis.

16. **Cordyceps Lacroixii** Har. et Pat. Bull. Soc. Mycol. 1904, p. 65, c. icon. — Stromate erecto, simplice, usque 20 cm. alt. 4 mm. cr., rigido, glabro, subtereti, sordide fusco, superne obscuriori in partem perithecigeram apice obtuse tenuatam 2-5 cm. longam, in sicco atram, levissimam, regulariter linguiformi-dilatato (6 mm.); peritheciis omnino immersis, confertis; ascis sporidiisque generis. 2866

Hab. in larvis Lepidopteri cujusdam in Japonia (Comm. Lacroix). — Affinis *Cord. Huegelii*, sed clavula atra omnino levis.

17. **Cordyceps subunilateralis** Henn. in Hedw. 1902, p. 168. — Stromate stipitato, apice rotundato-clavato, ca. 5 mm. longo; stipite subcylindraceo, castaneo, sursum piloso, 2-2,5 mm. longo, 400 μ. crasso; clavula subglobosa v. ovoidea, longitudinaliter sulcata, sursum verrucosa 2,5 × 2 mm. castanea; peritheciis subimmersis, papillato-ostiolatis, ovoideis ca. 200-250 × 150 μ.; ascis cylindraceo-fusoideis, rectis vel flexuosis, utrinque attenuatis, apice capitato-rotundatis, octosporis 100-150 × 3,5-4; sporidiis longitudine asci, filiformibus, pluriseptatis, minute guttulatis, hyalinis, ca. 2-2,5 μ. cr. 2867

Hab. in thorace Formicæ spec., Surinam Americæ merid.

18. **Cordyceps myosuroides** Henn. in Hedw. 1902, p. 169. — Stromatibus clavatis, stipitatis 6-8 mm. long.; stipite filiformi-tereti, brunneo, minute pilosulo 4-5 × 0,4 mm.; clavula oblonge cylindracea, obtusa, castanea, verrucosa 2-3 × 0,8 mm.; peritheciis extus $^2/_3$ liberis, obliquis, rotundato-ostiolatis, ovoideis, 200-220 × 150-180 μ.; ascis cylindraceo-clavatis v. subfusoideis, rectis vel flexuosis, apice rotundato tunicatis, basi attenuatis 80-120 × 6-8; sporidiis longitudine asci, filiformibus, pluriseptulatis, minute guttulatis, ca. 2,5 μ. cr. 2868

Hab. in thorace Ichneumonidæ, Surinam Americæ merid.

19. **Cordyceps javensis** P. Henn. F. javanici novi, in Hedw. 1902, p. 142. — Stromatibus solitariis ex dorso larvarum, olivaceo-brunneis; stipite tereti, flexuoso, carnoso, levi, glabro, 14-18 × 0,8 mm.; capitulo subgloboso, verrucoso-rugoso, ca 2 mm. diam.; peritheciis subimmersis, apice subhemisphærico-elevatis; ascis cylindra- 2869

ceis, vertice rotundato-subcapitulatis, 140-180 × 3,5-4,5; sporidiis filiformibus, pluriseptatis, longitudine ascorum, articulis 3-5 × 0,5-0,8 hyalinis.

Hab. in larvis Lepidopterorum, S. Aroun Javæ.

20. **Cordyceps juruensis** P. Henn. Fungi Amaz. II, p. 248, tab. IV, 2870
fig. 2. — Stromatibus stipitato-clavatis, 4-8 cm. altis, cinereo-alutaceis pruinosis vel subpulverulentis dein fuscidulo-atris, stipite cylindraceo v. compresso, flexuoso 3-6 cm. longo, 1-1 $^1/_2$ cm. crasso; clavula clavata vel subspathulata subfarinacea, compressa, obtusa, 5-10 mm. longa, 3-4 mm. lata; peritheciis omnino immersis, oblonge ovoideis, punctulato-ostiolatis; ascis cylindraceo-clavatis, apice incrassato-rotundatis, 4-sporis, 200-250 × 5-5 $^1/_2$; sporidiis filiformibus pluriseptatis, cellulis ca. 4-5 × 2, hyalinis; stromate eodem conidiophoro farinaceo; conidiophoris fasciculatis, ramosis, hyalinis; conidiis catenulatis, globosis, 1-guttulatis, 2 $^1/_2$-3 μ.

Hab. ad terram, Marary Rio Juruá Amazoniæ. — Incertum, an species zoogena v. mycogena sit. *Cord. olivaceo-virescenti* proxime affinis.

II. *Cordyliella* P. Henn. Hedw. 1904, p. 248 Stromata tentaculato-ramosa.

21. **Cordyceps Volkiana** A. Möller. Phyc. et Ascom. p. 233, t. VII, 2871
f. 98, 99, t. XI, f. 4, P. Henn. Fungi Amaz. II, pag. 248. — Syll. XVI, p. 615.

Hab. quoque in larvis Lamellicornium, Rio Juruá Amazoniæ. — Conidia tantum 4-5 × 1,5-2.

Fam. 4. Dothideaceæ.

Sect. 1. Hyalosporæ.

ZIMMERMANNIELLA P. Henn. F. javanici novi, in Hedw. 1902, p. 142 (Etym. a cl. mycologo et phytopathologo, prof. Alb. Zimmermann). — Stromata foliicola, innato-superficialia, subglobosa, subcornea, verrucoso-rugosa, atra. Perithecia immersa subglobosa vix ostiolata. Asci subfusoidei paraphysati, 3-spori. Sporidia monosticha, oblonga continua, hyalina. *Kullhemiæ* Karst. affinis.

1. **Zimmermanniella trispora** P. Henn. l. c. — Stromatibus hypophyl- 2872
lis, sparsis vel aggregatis, superficialibus, subglobosis, subcorneis,

atris, verrucoso-rugosis, dein rimosis, 0,5-1,5 mm. diam., intus atris; peritheciis immersis, vix ostiolatis, subglobosis; ascis lanciformibus v fusoideis, apice attenuatis, rotundato-obtusiusculis v. subacutiusculis, basi attenuatis, longe stipitatis, 60-80 μ. longis, p. sporif. 40-60 × 4-5, trisporis; paraphysibus copiosis, mycelioideis, hyalinis; sporidiis monostichis, oblongis, utrinque obtusis v. subacutiusculis, intus granulosis, continuis, hyalinis, 17-22 × 3,5-4.

Hab. in foliis Mangiferæ indicæ, Buitenzorg, Java.

MAZZANTIA Mont. — Syll. II p. 591, IX p. 1006.

1. **Mazzantia rotundata** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, p. 100, et Nachtr. I, p. 148 *Mazzantia* spec. n. 440. — Stromatibus sparsis subrotundis usque 1 mm. lat., applanatis v. subconcavis, rarius convexulis, glabris, nigris intus brunneis; peritheciis in quoque stromate 2-9, globoso-depressis, vertice prominulis, astomis, nitidulis; ascis tereti-clavatis, tenuato-stipitatis, octosporis 75-90 × 9-11; sporidiis mono-distichis, oblongo-ellipsoideis, utrinque obtusulis, inæquilateris, fere reniformibus vel rectis, continuis, hyalinis, biguttulatis, 15 × 4,5-5. 2873

Hab. in caulibus Laserpitii latifolii, Luxemburg. — *Mazz. Napelli* et *Mazz. Brunaudianæ* affinis.

PHYLLACHORA Nits. — Syll. II p. 594, IX p. 1006, XI p. 368, XIV p. 663, XVI p. 617.

1. **Phyllachora miryensis** P. Henn. Fungi Amaz III, 1904, p. 368. — Maculis rotundatis, fuscis; stromatibus epiphyllis sparsis vel gregariis, pulvinatis, atris, nitentibus, ca. 1-1 ½ mm. diam., ostiolatis; peritheciis globulosis; ascis clavatis, obtuse rotundatis, 8-sporis, 60-70 × 10-18; paraphysibus filiformibus, hyalinis ca. 2 μ. crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, utrinque obtusis, intus pluriguttulatis, hyalinis, 11-16 × 7-9. 2874

Hab. in foliis Anonaceæ cujusdam, Juruá-Miry Rio Juruá Amazoniæ.

2. **Phyllachora Vochysiæ** P. Henn. Fungi Amaz. IV in Hedw. 1905, pag. 64. — Maculis rotundatis, fuscis; stromatibus hypophyllis sparsis vel gregariis, pulvinatis, atris; ascis clavatis, apice rotundatis, 8-sporis, 70-85 × 12-22; paraphysibus filiformibus, hyalinis, ca. 2 μ. cr.; sporidiis oblique monostichis vel subdistichis, oblonge ellipsoideis vel subovoideis, utrinque rotundatis, continuis 12-20 × 8-10, hyalinis. 2875

Hab. in foliis Vochysiæ spec. Tarapoto, Rio Amazonas. — A *Phyll. granulosa* (Lév.) Sacc. et *Ph. Lehmanniana* Henn. satis diversa.

3. **Phyllachora Securidacæ** P. Henn. Fungi Amaz. II, pag. 251. — 2876
Maculis brunneis, rotundatis vel effusis; stromatibus amphigenis, sparsis, plano-pulvinatis, atris, superne nitentibus, 1-2 mm diam.; peritheciis immersis vix ostiolatis; ascis clavatis vel fusoideis, obtusis vel acutiusculis, 60-80 × 10-18, paraphysatis; sporidiis oblique monostichis vel subdistichis, fusoideis, intus granulatis, hyalinis, 15-18 × 5-7.

Hab. in foliis Securidacæ cujusdam, Sao Joaquin, Rio Negro Amazoniæ.

4. **Phyllachora Monninæ** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2877
tibus amphigenis, rotundatis vel subrotundatis, sparsis, rarius confluentibus, minutis, usque 1 mm. diam. atris, vix nitentibus, plurilocularibus; ascis cylindraceis, apice obtusis, stipitatis, 75-110 × 11-13 octosporis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, intus granulosis, 13 × 6½-8.

Hab. in foliis vivis Monninæ emarginatæ, Montevideo, Uruguay (Sello). — A *Phyllachora dendritica* Rehm, in Monnina, omnino diversa.

5. **Phyllachora Hammari** P. Henn., Fungi S. Paulenses I, in Hedw. 2878
1902, p. 110. — Stromatibus epiphyllis, sparsis, pulvinatis, atronitentibus, plerumque 1 mm. diam., loculis paucis immersis, subglobosis, ostiolatis; ascis oblonge ovoideis v. clavatis, apice obtuse rotundatis, octosporis, 45-75 × 20-30; paraphysibus filiformibus, hyalinis 3,5 μ. cr.; sporidiis subdistichis v. conglobatis ovoideis v. ellipsoideis, intus guttulatis, 13-16 × 7-9, hyalinis.

Hab. in foliis Machærii spec. prope S. Paulo Brasiliæ.

6. **Phyllachora manaosensis** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2879
culis fuscidulis effusis; stromatibus epiphyllis, gregarie sparsis, innato-subhemisphæricis, rotundatis vel oblongis atris nitentibus, c. 200-250 μ. diam., peritheciis paucis immersis, subglobosis vix ostiolatis; ascis clavatis apice rotundatis, 8-sporis, 45-60 × 12-18; paraphysibus filiformibus hyalinis; sporidiis oblique monostichis v. subdistichis, ellipsoideis, utrinque obtusis, intus guttulatis, hyalinis, 7-9 × 5-6.

Hab. in foliis Machærii spec., Manáos, Rio Negro Amazoniæ. — A *Phyll. Machærii* omnino diversa.

7. **Phyllachora schizolobiicola** P. Henn. Fungi S. Paulenses, I in 2880

Hedw. 1902, p. 109. — Maculis fuscidulis; stromatibus amphigenis, punctiformibus, sparsis v. nervos sequentibus, striiforme confluentibus, atris, opacis, pulvinatis, plerumque 0,5-1 mm. diam., loculis paucis immersis, ostiolatis; ascis clavatis vel subfusoideis 50-70 × 10-14, octosporis; paraphysibus copiosis, filiformibus, hyalinis ca. 2 μ. cr.; sporidiis oblique monostichis v. distichis, ellipsoideis, utrinque obtusis, intus guttulatis, hyalinis, 8-14 × 4-4,5.

Hab. in foliis Schizolobii excelsi, in horto bot. S. Paulo Brasiliæ.

8. **Phyllachora Schizolobii** Rehm, Hedw. XLIV, 1905, p. 2. — Stro- 2881
matibus plerumque hypophyllis, orbicularibus v. irregulariter elongatis, atris, in maculis folii parvulis, dilute ochraceis innatis, 0,5–3 mm. diam., loculis globosis 1-12 verrucose prominentibus, plus minusve discretis, poro vix conspicuo pertusis; ascis fusiformibus, 65-75 × 12, 8-sporis; sporidiis oblongis, rectis, utrinque rotundatis, dilute luteolis, 1-cellularibus, 12–14 × 5, distichis; paraphysibus vix conspicuis.

Hab. in foliis Schizolobii excelsi, Minas Geraes Brasiliæ (Ule).

9. **Phyllachora Derridis** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2882
tibus epiphyllis; maculis fuscescentibus obsoletis indeterminatis insidentibus, laxe circulariter dispositis, rotundatis vel irregularibus, convexulis, atris, nitentibus, $^1/_2$-1 mm. longis, pluriloculari-bus; ascis cylindraceo-clavatis, apice rotundatis, breviter stipitatis, 55-70 × 12-15, octosporis; sporidiis monostichis vel rarius irregulariter subdistichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 14-16 × 4–6.

Hab. in foliis vivis Derridis glabratæ, Angola (Welwitsch).

10. **Phyllachora copeyensis** P. Henn. Fungi costaricenses I, in Hedw. 2883
1902, p. 103. — Maculis atris, rotundatis; stromatibus hypophyllis v. amphigenis, rotundatis, planis, levibus, atris subnitentibus, ca. 2 mm. diam.; peritheciis subglobosis, ostiolis vix prominulis subverrucosis; ascis clavatis v. subfusoideis, apice rotundatis vel subacutis, 65-70 × 15-17, octosporis; paraphysibus filiformibus ca. 2 μ. cr. hyalinis; sporidiis oblique monostichis v. subdistichis, oblonge ellipsoideis v. ovoideis, hyalinis, intus granulatis, 20-23 × 8-10, continuis.

Hab. in foliis vivis Swartziæ spec., Cerros de Velirla Amer. centr.

11. **Phyllachora juruensis** P. Henn. Fungi Amaz. II, pag. 252. — 2884
Maculis fuscidulis effusis; stromatibus amphigenis sparse gregariis, angulato-pulvinatis, superne atro-nitentibus, rugulosis, interne opacis, verrucosis, 1–2 mm. diam.; peritheciis immersis, subglobosis; ascis fusoideis apice subacutis, 8-sporis, 60-65 × 10-17; paraphysibus filiformibus, 1 1/2 μ. crassis; sporidiis oblonge fusoideis utrinque subacutiusculis, intus granulosis, hyalinis, oblique monostichis vel subdistichis, 20-26 × 5-6.

Hab. in foliis Browniæ spec.? (Leguminosæ), Bom Fim Rio Juruá Amazoniæ. — Stromatibus prominentibus et sporidiis fusoideis distinguenda species.

12. **Phyllachora lungusaensis** P. Henn. in Engl. Bot. Jahrb. 1903, 2885
p. 50. — Peritheciis amphigenis, sparsis vel gregariis hemisphærico-pulvinatis, atro-nitentibus, minutis, ca. 0,2-0,3 mm. diam., levibus; peritheciis 1-4-subglobosis, immersis; ascis clavatis, interdum ovoideis, apice rotundatis 35-40 × 10-18, octosporis; paraphysibus filiformibus; sporidiis distichis vel subtristichis, ellipsoideis, utrinque obtusis, biguttulatis hyalinis, 8-10 × 3,5-4.

Hab. in foliis Lonchocarpi spec.?, Lungusa in Usambara Africæ orient. (Engler).

13. **Phyllachora Diocleæ** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2886
culis rotundatis v. effusis, brunneolis; stromatibus epiphyllis sparsis, rotundato-pulvinatis, planis, atris, granulato-verrucosis, 1 1/2-3 mm. diam.; peritheciis immersis, ovoideis, subhemisphærico-ostiolatis; ascis clavatis vel subfusoideis, apice rotundatis, 50-60 × 10-12; paraphysibus filiformibus, hyalinis, 1 1/2 μ. crassis; sporidiis oblique monostichis vel distichis, oblonge clavatis vel subfusoideis, 2-4-guttulatis, hyalinis, 18-22 × 4-5.

Hab. in foliis Diocleæ spec. prope Rio Juruá Amazoniæ.

14. **Phyllachora centrolobiicola** P. Henn. Fungi Amaz. II, p. 251. — 2887
Maculis rotundatis vel effusis, fuscidulis; stromatibus epiphyllis gregariis vel sparsis rotundato-pulvinatis, atro-nitentibus, subrugulosis, 1–2 mm. diam.; peritheciis immersis ovoideis; ascis clavatis, obtusis vel subacutiusculis, 8-sporis, 80-90 × 14-20; paraphysibus filiformibus, hyalinis, 2 μ. crassis; sporidiis oblique monostichis vel subdistichis, ovoideis vel fusoideis intus granulatis, obtusis, hyalinis, 12-20 × 8-10; stromatibus conidiophoris æqualibus, conidiis subglobosis vel ovoideis, 1-guttulatis, 6-8 μ., atris (*Haplosporella centrolobiicola* P. Henn.).

Hab. in foliis Centrolobii spec., Tarapoto, Perù — A *Ph. Centrolobii* habitu et sporidiis distichis fusoideis diversa.

15. **Phyllachora mexicana** Turc., Un fungo parass. sulla Chaquirilla. 2888
p. 29 (Atti Ist. bot. Pavia Majo 1904, vol X), *Phyll. Adolphiæ* Ell. et Kell. Journ. of Mycol. Sept. 1904. p. 232 c. iconib. — Stromatibus numerosis, dense gregariis, rarius confluentibus, subrotundis v. elliptico-elongatis, prominulo-applanatis v. leniter convexis, levibus, atro-piceis, minutis, 1-2 mm. diam., denique longitudinaliter fissis, 2-4-locularibus; loculis globoso-depressis v. lenticularibus; ascis cylindraceis 80-110 × 12-15, superne rotundatis, inferne brevissime et spurie attenuato-pedicellatis, aparaphysatis, octosporis; sporidiis oblique monostichis, rarius subdistichis, ovato-ellipsoideis, utrinque rotundatis, hyalinis, 11-15 × 6,5-8, intus granulosis.

Hab in ramulis vivis Adolphiæ infestæ (*Chaquirilla*), Mexico (A. L. Herrera). — Socium adest pycnidium: *Cytosporina Adolphiæ* Turc. - Test. Ell. et Kell. l. c. adsunt paraphyses bacillares. 2-3,5 μ. crass. et sporidia sunt 12-15 × 8-10.

16. **Phyllachora pusilla** Syd. Ann. Mycol. 1904, p. 163. — Stroma- 2889
tibus epiphyllis, sparsis, minutissimis, punctiformibus, ca. $^1/_3$-$^1/_2$ mm. diam., atris, subnitentibus, 1- vel pauciloculariibus; ascis cylindraceis v. cylindraceo-clavatis, apice rotundatis, breviter stipitatis, 70-105 × 11-21, octosporis; sporidiis monostichis vel subdistichis, ellipsoideis, utrinque rotundatis, intus guttulatis, continuis, hyalinis, 11 $^1/_2$-17 × 7-10; paraphysibus filiformibus.

Hab. in foliis vivis Pavoniæ Schrankii in Brasilia (Sello).

17. **Phyllachora minuta** P. Henn. F. javanici novi, in Hedw. 1902, 2890
pag. 143. — Maculis rotundatis, fuscis; stromatibus amphigenis, sparsis, minutis, pulvinatis, atro-nitentibus, 0,5-1 mm. diam., levibus, glabris, perithecciis 1-2 subglobosis; ascis clavatis apice obtusis, octosporis, 80-110 × 15-18; paraphysibus filiformibus, hyalinis 1-1,5 μ. cr.; sporidiis subdistichis v. oblique monostichis, ellipsoideis v. ovoideis, intus nebulosis. 13-18 × 7-8, hyalinis, continuis.

Hab. in foliis Hibisci spec Buitenzorg Javæ.

18. **Phyllachora macrospora** A. Zimm. in Centralbl. f. Bakter. 1902, 2891
VIII. p. 183. — Stromatibus orbicularibus, atro-brunneis nigrisve, margine obscuriore leviter curvatis, parenchyma folii penetrantibus, sæpe hinc inde dense gregariis, 1-1,5 mm. diam.; loculis 1-3 in epiphyllo dehiscentibus; ascis obtusatis, 8-sporis, 140 μ. longis, filiformi-paraphysatis; sporidiis oblongis utrinque obtusis, hyalinis, dein brunneolis, extus verruculosis, 35-40 × 8.

Hab. frequens in foliis Durionis zibethini circa Buitenzorg Javæ.

19. **Phyllachora Ocoteæ** P. Henn. in Hedw. 1904, p. 86. — Maculis 2892
obsoletis vel flavidulis; stromatibus epiphyllis sparse gregariis, innatis, subdiscoideo-applanatis vel convexis, rotundatis, atro-nitentibus 0,3-0,4 mm. diam.; perithecis immersis vix prominulis; ascis clavatis, interdum substipitatis, apice rotundatis, octosporis, 60-80 × 12-20; paraphysibus copiosis, filiformibus, septatis, subramosis, hyalinis ca. 2 μ. crassis; sporidiis oblique monostichis v. subdistichis, ellipsoideis vel subovoideis, hyalinis, 10-15 × 7-8.

Hab. in foliis Ocoteæ spec., Cabo Frio, Rio de Janeiro Brasiliæ (E. Ule).

20. **Phyllachora opposita** P. Henn. Fungi Amaz. II, p. 252. — Ma- 2893
culis rotundatis, fuscidulis; stromatibus innatis, opposito-amphigenis, subrotundato-dispositis, plano-pulvinatis, atro-opacis vel subnitentibus, minute ostiolatis, ca. 0,7-10 mm. diam.; perithecis immersis, globosis; ascis fusoideis vel subclavatis, apice subobtuso-rotundatis, stipitatis, 100-130 μ. longis, p. sp. 80-100 × 10-12; paraphysibus filiformibus, hyalinis, ca. 2 μ. crassis; sporidiis oblique monostichis, oblonge fusoideis, utrinque subacutis vel rotundatis, hyalinis, guttulatis, 14-17 × 5.

Hab. in foliis Lauraceæ cujusdam, Rio Juruá Amazoniæ.

21. **Phyllachora socia** P. Henn. Fungi Amaz. II, p. 253. — Maculis 2894
rotundatis, fuscis; stromatibus subcirculariter dispositis epiphyllis, innato-erumpentibus, rotundato vel oblonge pulvinatis, atro-nitentibus, 7-10 mm. diam.; perithecis immersis, globulosis, atris; ascis subfusoideis vel subclavatis, apice rotundato-obtusis, stipitatis, 140-200 × 18-30; paraphysibus filiformibus, 3-4 μ. crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, crasse tunicatis, intus guttulatis, hyalinis, 20-30 × 13-15.

Hab. in foliis Lauraceæ cujusdam, intermixta *Phœangella socia* P. Henn., Cerro de Escaler, Perù.

22. **Phyllachora madeirensis** P. Henn. Fungi Amaz. III, 1904, p. 368. 2895
— Maculis subrotundatis, fuscidulis; stromatibus epiphyllis, gregariis, minutis ca. 250 μ., subhemisphæricis ostiolatis, atro-nitentibus; peritheciis paucis, subglobosis; ascis clavatis vel subfusoideis, rotundatis, 8-sporis, paraphysatis, 50-60 × 8-12; sporidiis oblique monostichis vel distichis oblonge fusoideis vel clavatis, obtusis, hyalinis 12-16 × 5-6.

Hab. in foliis Lauraceæ cujusdam Marmellos Rio Madeira Amazoniæ.

23. **Phyllachora huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 368. 2896
— Maculis rotundatis, subinflatis, pallide fuscis, exaridis; stromatibus amphigenis, subconcentrice dispositis, sublenticulari-planis, atris opacis; peritheciis immersis, subglobosis; ascis clavatis, obtuse rotundatis, 8-sporis, paraphysatis, 50-80 × 12-15; sporidiis oblique monostichis vel subdistichis, fusoideis vel ovoideis, intus granulatis, hyalinis, 12-15 × 5-6.

Hab. in foliis Lauraceæ cujusdam, Huallaga Yurimaguas, Perù.

24. **Phyllachora phyllanthophila** P. Henn. Fungi Amaz. II, p. 250. 2897
— Maculis rotundatis fuscidulis v. obsoletis; stromatibus epiphyllis gregarie sparsis, rotundato-pulvinatis, atris, opacis vel subnitentibus, 0,4-0,6 mm.; peritheciis paucis, ovoideis; ascis clavatis, apice rotundatis, basi substipitatis, 8-sporis, 35-45 × 12-15; paraphysibus filiformibus, hyalinis, ca. 2 μ. crassis; sporidiis subdistichis raro oblique monostichis, ellipsoideis vel subovoideis, intus granulatis, hyalinis, 10-14 × 5-7.

Hab. in foliis Phyllanthi spec., Sao Antonio, Perù.

25. **Phyllachora Maprouneæ** P. Henn. Fungi Amaz. II, p. 250. — 2898
Maculis pallidis vel violaceis, rotundatis vel effusis; stromatibus epiphyllis gregarie sparsis, rotundato-pulvinatis, atris, subnitentibus, 0,5 mm.; ascis clavatis, apice rotundatis, 8-sporis 60-100 × 12-20; paraphysibus filiformibus, hyalinis, ca. 2 μ. crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis, hyalinis, continuis, 9-12 × 7-9.

Hab. in foliis Maprouneæ surinamensis Tarapoto, Huallaga, Perù. — Maculis matricis violascentibus dignoscenda species.

26. **Phyllachora Crotonis** (Cke.) Sacc. — Syll. II, pag. 599. — var. 2899
parvula Syd. Ann. Mycol. 1904, p. 162. — A typo recedit ascis multo minoribus, 42-55 × 7-9½ sporidiisque minoribus, nempe 7-11 × 5½-7.

Hab. in foliis vivis Crotonis chamædryfolii, Mattogrosso, Brasilia (Spencer Moore). — An propria species?

27. **Phyllachora Simabæ-Cedronis** P. Henn. Pilz. Cost. u. Parag. 2900
p. 117. — Stromatibus amphigenis, stellato-effusis v. plurilobatis, atris, nitentibus, fuciformibus, 1-2 cm. diam.; peritheciis immersis, subglobosis, ostiolis subprominulis; ascis clavatis, obtusis, stipitatis 8-sporis, 50-80 × 15-26; sporidiis oblique monostichis v. subdistichis ellipsoideis, hyalinis, intus granulatis, 8-12 × 5-7.

Hab. in foliis Simabæ Cedronis, Golfo de Osa, Costarica. — Stromata stellata *Fucum* minutum æmulantur.

28. **Phyllachora Tonduzii** P. Henn. Fungi costaricenses I, in Hedw. 1902, p. 103. — Maculis fuscis, rotundatis, minutis; stromatibus hypophyllis sparsis v. gregariis, rotundato-pulvinatis, applanatis, atris, subnitentibus, ca. 1 mm. diam.; loculis paucis, subglobosis, ostiolis vix prominulis; ascis clavatis v. subfusoideis, obtusis vel subacutiusculis, octosporis, 75-80 × 15-20; paraphysibus filiformibus, hyalinis ca. 1 μ. cr.; sporidiis subdistichis, oblonge clavatis, rectis v. curvulis, apice obtusis, basi acutiusculis, continuis 25-35 × 5-6, hyalinis. 2901

Hab. in foliis vivis Myrsines spec., Cerros de Velirla Amer. centr.

29 **Phyllachora Caseariæ** P. Henn. Fungi Amaz. II, pag. 251. — Maculis rotundatis vel effusis, brunneolis; stromatibus epiphyllis, gregarie sparsis, planis, atro-nitentibus, ostiolis punctoideis; peritheciis immersis, ovoideis; ascis clavatis vel subfusoideis, apice rotundatis vel subacutiusculis, 8-sporis, 60-90 × 10-12; paraphysibus filiformibus, hyalinis, $1^1/_2$ μ. crassis; sporidiis oblique monostichis interdum subdistichis, ellipsoideis vel ovoideis, intus granulatis, hyalinis, 8-12 × 5-6. 2902

Hab. in foliis Caseariæ spec., Manáos, Rio Negro Amazoniæ.

30. **Phyllachora Baumii** P. Henn. in Ergebn. der Kunene Sambesi Expedit. p. 166 (1902). — Maculis sparsis, rotundatis, brunneis v. cinereis exaridis, zona obscuriore circumdatis; stromatibus circulariter dispositis, rotundato-pulvinatis, atris, subnitentibus minutis ca. 1 mm. diam.; 1-3 peritheciis globulosis vix ostiolatis; ascis longe clavatis, apice obtusiusculis, basi stipitato-attenuatis, octosporis, 90-150 × 8-10; paraphysibus filiformibus, septulatis, 3 μ. cr.; sporidiis oblonge fusoideis v. subclavatis, continuis 15-18 × 5-7, hyalinis. 2903

Hab. in foliis vivis Sideroxyli spec., Jau, Afr. austr.

31. **Phyllachora Melaleucæ** Syd. Ann. Mycol. 1904, p. 164. — Stromatibus amphigenis, innatis, minutis, ca. $^1/_3$ mm. diam., atris, nitidis, hemisphærico-prominulis, paucilocularibus; ascis cylindraceis, apice rotundatis, basi breviter stipitatis, 66-84 × 8-11, octosporis; sporidiis oblique monostichis, oblongo-ellipsoideis, utrinque obtusiusculis, hyalinis, continuis, 11-14 × $4^1/_2$-$6^1/_2$; paraphysibus filiformibus. 2904

Hab. in foliis vivis Melaleucæ spinosæ, Australia (Preis; comm. F. W. Neger).

32. **Phyllachora cinerea** E. et Ev. Journ. of Mycol. 1904, p. 170. — 2905
Stromatibus sparsis, cortice interiore atrato nidulantibus, orbicularibus 500 μ. diam. vel oblongis 1500 × 750 μ., intus cinereis, disco fusco cinereo, erumpente, applanato, epidermide rupta cincto; ascis cylindraceo-clavatis, paraphysatis, 80-100 × 12-15; sporidiis distichis, ovato-ellipsoideis, hyalinis, continuis 12-15 × 5-7.

Hab. in ramis emortuis Catalpæ, London, Canada Amer. bor. — Socia adest *Phoma diatrypea*, probabile pycnidium. Loculi parum distincti.

33. **Phyllachora vernoniicola** P. Henn., Fungi S. Paulenses I, in 2906
Hedw. 1902, p. 110. — Maculis fuscidulis; stromatibus innatis, amphigenis sparsis v. gregariis, minutis, pulvinatis, atro-nitentibus 0,3-0,4 mm. diam., plerumque unilocularibus, loculis subglobosis immersis ostiolatis; ascis clavatis apice rotundato-obtusis, octosporis, 70-80 × 13-15; paraphysibus filiformibus, hyalinis 2-3 μ. cr.; sporidiis monostichis, ovoideis, intus granulatis, 12-14 × 6-8 hyalinis.

Hab. in foliis Vernoniæ spec. in horto botanico, S. Paulo Brasiliæ.

34. **Phyllachora? Mutisiæ** Speg. Myc. argent. ser. II, 1902, p. 75. — 2907
Stromatibus hypophyllis, non nitentibus, eximie limitatis 1-5 mm. diam., repando-suborbicularibus, atterrimis, innato-subsuperficialibus, epidermide innatis; loculis constipatis angulato-subglobosis 30-50 μ., numerosis, nucleo albo farctis; ascis . . . .

Hab. ad folia viva Mutisiarum, Carreuleofü, in Argentina. — Species vulgata et pulchella sed certe in foliis delapsis tantum maturans.

35. **Phyllachora viticicola** P. Henn. Fungi Amaz. II, pag. 251. — 2908
— Maculis fuscis effusis vel rotundatis; stromatibus gregariis amphigenis innato-erumpentibus, rotundato-pulvinatis, atro-nitentibus, 0,5 mm. diam.; peritheciis paucis immersis; ascis clavatis, apice rotundatis, 8-sporis, 65-80 × 13-20; paraphysibus filiformibus ca. 1 ½ μ. crassis; sporidiis oblique monostichis v. distichis, fusoideis utrinque apiculatis, hyalinis, 15-23 × 8-10.

Hab. in foliis Viticis sp. Bom Fim Rio Juruá Amazoniæ. — A *Ph. Tarumæ* sporidiis acute fusoideis distincta.

36. **Phyllachora ? Gaylussaciæ** P. Henn. in Hedw. 1902, p. 303. — 2909
Maculis rotundato-explanatis, rufo-violaceis; stromatibus amphi-

genis, applanatis, atris, carbonaceis, ca. 0,5-1 cm. diam., opacis, dense granulato-verrucosis; peritheciis immersis, ostiolatis, globulosis; conidiis filiformibus, flexuosis, hyalinis, continuis 30-60 × 0,5-0,7.

Hab. in foliis Gaylussaciæ spec. pr. S. Paulo Brasiliæ

37. **Phyllachora Macrosiphoniæ** P. Henn. Fungi S. Paulenses III, p. 206, Hedw. 1904 (nomen correctum), *Phyllachora Heteropteridis* P. Henn., Fungi S. Paulenses I, in Hedw. 1902, p. 110. — Stromatibus epiphyllis, sparsis v. aggregato-confluentibus, carbonaceo-atris, nitentibus, pulvinatis, angulatis, ruguloso-verrucosis 0,5-8 mm. diam.; loculis subglobosis, immersis, ostiolatis; ascis clavatis apice obtusis, 55-65 × 9-11 octosporis; paraphysibus copiosis, filiformibus, hyalinis; sporidiis oblique monostichis ellipsoideis, utrinque rotundatis, granulosis 6-8 × 5-6, hyalinis. 2910

Hab. in foliis et fructibus Macrosiphoniæ spec. prope S. Paulo Brasiliæ. — Stromata hinc inde a *Zythia phyllachoricola* invasa.

38. **Phyllachora effigurata** Syd. Ann. Myc. 1903. p. 178, *Ph. dendritica* P. Henn. Hedw. 1902, p. (17) nec Rehm. — Maculis fuscis, effusis; stromatibus sæpe amphigenis, nervos sequentibus, epiphyllis sparsis, minutis, atris, nitentibus, hypophyllis gregariis, subpulvinatis, dendritico-confluentibus, atris, opacis, verrucoso-tuberculatis; peritheciis paucis, globosis, immersis; ascis clavatis, obtusis 70-100 × 6-11; paraphysibus copiosis, filiformibus sporidiis oblique monostichis, oblonge ellipsoideis v. clavatis, intus granulosis, 13-18 × 5-6, hyalinis. 2911

Hab. in foliis Urostigmatis spec. in horto botanico Parà, Amer. austr.

39. **Phyllachora Astrocaryi** P. Henn. in Hedw. 1904, pag. 87. — Stromatibus erumpente-superficialibus, subglobosis, carbonaceis, atrofuscis, opacis, verrucoso-ostiolatis 1-2 mm. diam.; peritheciis subglobosis immersis; ascis clavatis, apice rotundatis vel applanatis, pedicellatis, ca. 80-140 × 13-16, octosporis, paraphysatis; sporidiis oblique monostichis vel subdistichis, fusoideis vel oblonge subellipsoideis, utrinque subacutis vel obtusiusculis, hyalinis, 12-14 × 7-8. 2912

Hab. in foliis Astrocaryi spec., Rio de Janeiro Brasiliæ (E. Ule).

40. **Phyllachora Scirpi** Feltg. Vorstud. Pilz. Luxemb. Nachtr. II, 1901, p. 99. — Stromatibus sparsis, innatis, oblongo-ellipsoideis, 2913

0,5-1 mm. long.; perithecis prominulis, verruciformibus, in primis ad stromatis marginem; ascis clavatis, longiuscule stipitatis, obtusulis, 65-85 × 10-12, octosporis; sporidiis distichis, ellipsoideis, rectis curvulisve, bi-guttulatis, subinde plasmate bipartito, hyalinis, 15-18 × 4-5.

Hab. in calamis Scirpi lacustris, Luxemburg. — *Phyllachoræ Cynodontis* proxime affinis.

41. **Phyllachora eximia** Syd. Ann. Myc. 1904, p. 163. — Stromatibus in utraque folii pagina conspicuis, maculis striiformibus flavo-stramineis insidentibus, sparsis v. seriatim confluentibus, singulis oblongis $^1/_2$-2 mm. longis, confluentibus majoribus, atris; ascis cylindraceis, apice rotundatis, breviter stipitatis, maximis, 125-200 × 18-25 μ., octosporis; sporidiis oblique monostichis vel subdistichis, ellipsoideo-fusiformibus, fine inferiore acutiusculo, altero magis obtuso, continuis, ex hyalino flavescentibus, 25-28 × 8-12. 2914

Hab. in foliis vivis Arundinariæ alpinæ, Africæ or. inter Ssedia et Kwa-Musini-Ssagara, Ussagara (W. Busse). — Ascis sporidiisque majusculis dignoscenda species.

42. **Phyllachora Maydis** Maublanc, Bull. Soc. Mycol. 1904, pag. 72, t. VII, f. 7. — Stromatibus carbonaceis, amphigenis, subrotundatis v. oblongis, intus loculos monostichos, globulosos v. angulatos foventibus; ascis cylindricis, leviter pedicellatis, 80-100 × 7-8; paraphysibus numerosis, filiformibus, guttulatis, ascos superantibus, 2-3 μ. cr; sporidiis monostichis, ovoideis, basi leniter tenuatis, chlorino-hyalinis, dein crasse 1-guttatis granulatisque, 10-14 × 5,5-6,5. 2915

Hab. in foliis subvivis Zeæ Maydis in Mexico, socio et valde Zeæ noxio *Helmintosporio turcico* (Doct. S. Bonansea). — In loculis junioribus formantur sporulæ filiformes, 10-15 × 0,2.

43. **Phyllachora serialis** Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 18. — Stromatibus seriatis, internerviis, punctiformibus, initio velatis dein suberumpentibus, plus minusve confluentibus 2-3 mm. diam.; stromatibus singulis 500 μ. diam., in parenchyma foliorum immersis.; ascis dense fasciculatis, clavato-cylindraceis, breve stipitatis 75-80 × 12-15; sporidiis oblique monostichis vel distichis, ovatis, continuis 10-12 × 5-6, hyalinis. 2916

Hab. in Spartina stricta, Pacific Grove, California.

44. **Phyllachora Sacchari** P. Henn. F. javanici novi, in Hedw. 1902, p. 143. — Maculis pallidis v. fuscis; stromatibus epiphyllis, oblonge pulvinatis, innato-erumpentibus, carbonaceo-atris, opacis, levi- 2917

bus 1-1,5 cm. longis 0,5-1 mm. latis; peritheciis immersis 1 vel paucis; ascis clavatis, apice obtuse rotundatis, octosporis 80-120 × 15-18; paraphysibus filiformibus, hyalinis; sporidiis subdistichis vel monostichis, ellipsoideis vel ovoideis, utrinque obtusis, intus nebulosis, hyalinis, continuis, 12-18 × 9-12.

Hab. in foliis Sacchari officinarum, Buitenzorg Javæ.

45. **Phyllachora Vossiæ** Syd. Ann. Mycol. 1904, p. 163. — Stromatibus sparsis, utraque pagina folii conspicuis, minutis, subrotundatis vel oblongis, usque 1 mm. longis, atris, pauciloculariibus; ascis cylindraceis, apice rotundatis, breviter stipitatis, 55-66 × 9-11, octosporis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, continuis, hyalinis, 9-11 × 4½-5½. 2918

Hab. in foliis vivis Vossiæ proceræ, Kordofan merid. Birket-Rahad, Africa (Dr. J. Pfund).

46. **Phyllachora Sporoboli** Patouill. in Bull. Soc. Myc. de France, 1903, fasc. 3, p. 258. — Stromatibus sparsis vel confluentibus, elongatis nigris, 1-2 mm. long., epidermide nigrificata nitenti adnata tectis; peritheciis immersis, ostiolis vix prominulis; ascis claviformibus, apice rotundatis, inferne attenuatis 100 × 20 octosporis; paraphysibus numerosis, linearibus, guttulatis; sporidiis subdistichis, ovoideis, simplicibus, levibus, diu hyalinis, dein pallidissime brunneis 20-23 × 10; loculis junioribus sporulas lineares, flexuosas, hyalinas, 8-10 × 0,5 includentibus. 2919

Hab. in Sporoboli (Agrostidis) pungentis, Arzew Algeriæ. — Ab affini *Phyll. Cynodontis* Sacc. sporidiis majoribus differt.

47. **Phyllachora Eleusines** Speg. Myc. argent. ser. II, 1902, p. 75. — Maculis nullis; stromatibus amphigenis, atris, suborbicularibus, levibus, subnitidulis 1-3 mm. diam. parum prominulis; loculis constipatis, e mutua pressione angulatis 150-200 μ. diam., albofarctis, astomis?; ascis cylindraceis, apice subtruncatis, deorsum breviter attenuato-pedicellatis 130 μ. long. 12 μ. crass., octosporis; paraphysibus paullo longioribus, filiformibus, septulatis; sporidiis ellipsoideis v. leniter inæquilateralibus, levibus, grosse 1-guttulatis 15 × 7 hyalinis. 2920

Hab. in foliis vivis Eleusines tristachyæ, La Plata in Argentina.

48. **Phyllachora Chionachnes** Syd. Ann. Mycol. 1904, p. 64. — Stromatibus hypophyllis, in epiphyllo maculas indeterminatas fusco-violascentes obsoletas generantibus, sparsis v. seriatim dispositis v. irregulariter ordinatis, oblongis, hinc inde confluentibus, solitariis 2921

ca. 1 mm. longis, confluentibus, usque 1 cm. longis, atris, subnitidis; ascis late cylindraceis, apice rotundatis, 45-58 × 10-11, octosporis; sporidiis oblique monostichis, late ellipsoideis, utrinque rotundatis, intus granulosis, continuis, hyalinis, 9-11 × 6½-7½; paraphysibus numerosis, fusiformibus, apice leniter incrassatis.

Hab. in foliis vivis Chionachnes barbatæ, Panjab Indiæ or. (Hooker fil. et Thomson).

49. **Phyllachora graminis** (Pers.) Fuck. — Syll. II, p. 602. — var. **Panici-sulcati** P. Henn. Fungi costaricenses I, in Hedw. 1902, p. 103. — Stromatibus amphigenis, gregariis, angulato-rotundatis v. oblongis, atris, 1–1,5 mm. diam., opacis v. subnitentibus; perithecciis subglobosis, immersis, ostiolis vix prominulis; ascis clavatis, apice rotundatis, octosporis, 60-80 × 10-14, paraphysibus filiformibus, hyalinis ca. 1,5 μ. cr.; sporidiis ellipsoideis v. ovoideis, utrinque obtusis, intus pluriguttulatis, 10-15 7-8 continuis, hyalinis. 2922

Hab. in foliis vivis Panici sulcati, S. Francisco de Guadalupa Amer. centr.

50. **Phyllachora Arthraxonis** P. Henn. in Hedw. 1904, pag. 142. — Stromatibus epiphyllis, gregarie sparsis, minute punctiformibus, ca. 250. μ. vel nervos sequentibus oblongis, ca. 1 mm. longis, atris, subopacis, 1-paullo-perithecigeris; ascis clavatis, apice rotundatis 35-45 × 8-12, octosporis, paraphysatis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel subfusoideo-clavatis, hyalinis, bi-guttulatis, 8-11 × 4-5. 2923

Hab. in foliis Arthraxonis ciliaris, Tôchi in prov. Tosa Japoniæ (Yoshinaga).

51. **Phyllachora pteridiicola** P. Henn. Fungi Amaz. II, p. 249. — Stromatibus epiphyllis sparsis interdum nervisequentibus, oblonge pulvinatis, brunneis opacis, ca. 0,6–1 mm. longis; perithecciis immersis, vix ostiolatis, subglobosis; ascis cylindraceo-clavatis apice obtuse applanatis, 8-sporis, paraphysatis, 90-100 × 10-15; sporidiis oblique monostichis v. subdistichis, oblonge fusoideis, plerumque acutiusculis, continuis, hyalinis, 18-22 × 7-8. 2921

Hab. in foliis Pteridis aquilinæ, Manáos, Rio Negro Amazoniæ — A *Ph. Flabella* (Schw.) Thüm. omnino distincta.

52. **Phyllachora filicina** Saccardo et Scalia, Harrim. Alaska Exped. Crypt. p. 27, pl. V, f. 15. — Stromatibus epiphyllis, maculiformibus, atris, applanatis, parum emergentibus, ambitu e circulari angulosis, superficie regulari, contextu atro-brunneo, parenchymatico; loculis numerosis, immersis, globosis, 70-80 μ diam., pallidioribus; 2925

ascis tereti-clavatis, brevissime stipitatis, 70 × 10-11,5, apice rotundatis, octosporis; sporidiis elliptico-oblongis. utrinque rotundatis, rectis, 14-15 × 5-6, continuis, hyalinis, intus granuloso, farctis.

Hab. in foliis vivis Aspidii Lonchitis, Unalaska Alaska (Evermann). — Pulchella species, omnino distincta.

EURYACHORA Fuck. — Syll. II, p. 625, IX p. 1030, XIV p. 674, XVI p. 624.

1. **Euryachora ? Arjonæ** Speg. Myc. argent. ser. II, 1902, p. 75. — 2926
Stromatibus innatis, epidermide arcte adhærente vestitis, extus intusque atris, levibus, primo minutis granuliformibus, dein effusis totam matricem infestantibus; loculis confertissimis, subglobosis v. e mutua pressione angulosis 50 μ. diam., obsolete ostiolatis, nucleo filamentoso-mucedineo, albo repletis.

Hab. ad folia et caules vivos Arjonarum, Mendoza et Chubut in Argentina. — Species vulgatissima sed adhuc semper sterilis inventa; caules et folia infecta sæpius leviter hypertrophica crassiuscula, primo pallidiora stromatibus punctiformibus plus minusve gregariis, subseriatis percursa, mox tota sæpius utrinque tecta.

Sect. 2. Phæosporæ.

AUERSWALDIA Sacc. — Syll II p. 626, IX p. 1031, XI p. 374, XIV p. 675, XVI p. 625.

1. **Auerswaldia Balansæ** (Speg.?) Fl. Tassi in Bull. Lab. Ort. Bot. 2927
Siena 1904, p. 74, *Lasmenia Balansæ* Speg. — Syll. X, p. 425. — Maculis nullis; stromatibus hypophyllis 300-500 μ. diam., partim orbicularibus, partim irregularibus, densiuscule sparsis, numquam confluentibus, nigris, levibus, glabris, pulvinatis, parenchyma inter duas epidermides pervadentibus; loculis in quoque stromate sæpe solitariis v. paucis 2-3, immersis, albo-farctis; ascis cylindricis, apice rotundatis, deorsum breve attenuatis, octosporis, 100-125 × 14-15; sporidiis monostichis, haud raro subdistichis, ellipticis, utrinque obtusulis 15-20 × 8-9 non v. grosse 1-guttulatis, brunneo-olivaceis, paraphysibus filiformibus obsoletis obvallatis.

Hab. in foliis vivis Eugeniæ spec. Cerro Hu, prov. Paraguay (B. Balansa, Pl. du Paraguay n. 3750).

2. **Auerswaldia Miconiæ** P. Henn. Fungi Amaz. II, p. 253. — Ma- 2928

culis rufo-brunneis, rotundatis; stromatibus hypophyllis sparsis, atro-carbonaceis, pulvinato-erumpentibus, rotundatis, rugulosoverrucosis, ca. 1 mm. diam.; peritheciis subimmersis, verrucosoostiolatis; ascis cylindraceo-clavatis, apice obtusis, 8-sporis, 120-130 × 6-7; paraphysibus filiformibus, hyalinis, ca. 1 ½ μ. crassis; sporidiis oblique monostichis ellipsoideis, utrinque rotundatis, 10-13 × 4-5½, atris, continuis.

Hab. in foliis Miconiæ spec., Rio Juruá Amazoniæ. — Ab *Auersw. Fiebrigii* omnino diversa.

3. **Auerswaldia Fiebrigii** P. Henn. Pilz. Costar. u. Parag. p. 148. — 2929
Maculis rotundatis, rufo-brunneis; stromatibus pulvinato-applanatis vel subdiscoideis sparsis vel gregariis hypophyllis, atris, verruculosis, 1-2 mm. diam.; peritheciis immersis, subglobosis, obtuse ostiolatis; ascis clavatis vel subfusoideis, obtusis, 8-sporis, 120-160 × 10-13; paraphysibus subramosis, hyalinis, 2-3 μ. crassis; sporidiis oblonge fusoideis utrinque obtusiusculis, continuis, primo hyalinis dein flavo-brunneis vel fuscis, 15-24 × 6-8.

Hab. in foliis Miconiæ spec., Cordillera de Altos Paraguay (K. Fiebrig). — Sporidiis læte brunneis v. flavo-brunneis distincta species.

4. **Auerswaldia Leandræ** Syd. in Hedw. 1901, p. 2. — Maculis epi- 2930
phyllis minutis, brunneis, interdum obsoletis; stromatibus hypophyllis, sparsis non confluentibus, innato-superficialibus globosis v. hemisphærico-sublenticularibus, verruciformibus 1-1,5 mm. d., atris, rugulosis; loculis numerosis, globulosis v. ovatis 180-240 μ. diam.; ascis cylindraceis, breviter stipitatis, rectis 95-120 × 6-8, octosporis; paraphysibus filiformibus, flexuosis; sporidiis monostichis, ovatis v oblongis, utrinque rotundatis, continuis, primo hyalinis, demum fuscidulis, intus granulosis, 13-16 × 4-6.

Hab. in foliis vivis Leandræ cordifoliæ, Rio Grande do Sul Amer. austr. (Reineck et Czermack).

5. **Auerswaldia Puttemansii** P. Henn. Fungi S. Paulenses I, in Hedw. 2931
1902, pag. 111. — Maculis bullatis, rotundatis, fuscis, 5-10 mm. diam.; stromatibus epiphyllis, rarissime hypophyllis gregarie erumpentibus, subgloboso-depressis, botryoso-rugosis, atro-carbonaceis, opacis 1-1,5 mm. diam.; peritheciis subglobosis, immersis, pallidis; ascis clavatis vel subfusoideis, apice obtusis vel subacutiusculis, basi attenuatis, octosporis, 120-150 × 17-25; paraphysibus filiformibus, hyalinis 3-4 μ. cr.; sporidiis oblique monostichis v. distichis, ovoideis v. ellipsoideis, 16-22 × 12-14, hyalino-fuscidulis.

Hab. in foliis Lauracearum, Sao Paulo Brasiliæ.

6. **Auerswaldia Cecropiæ** P. Henn. Fungi Amaz. II, pag. 253. — 2932
Maculis rufo-brunneis, rotundatis; stromatibus erumpenti-superficialibus, applanato-pulvinatis, atro-carbonaceis, ruguloso-verrucosis, ca. 1-2 mm. diam.; perithecis immersis, subglobosis; ascis clavatis, obtusis, 8-sporis, 50-80 × 14-22; paraphysibus filiformibus, hyalinis; sporidiis subdistichis, ellipsoideis vel ovoideis, continuis, utrinque rotundatis, primo hyalino-granulatis, dein fuscis, 13-18 × 8-11.

Hab. in foliis Cecropiæ spec., Rio Juruá Amazoniæ.

7. **Auerswaldia microthyrioides** P. Henn. in Hedw. 1904, p. 142. — 2933
Stromatibus innato-superficialibus epiphyllis, sparse gregariis paginam totam vestitienbus, minutis, carbonaceis, rotundato-pulvinatis, atris, nitentibus, ostiolatis, margine plano subopaco circumdatis 0,3-1 mm. diam., 1 pauci-perithecigeris; ascis clavatis, apice rotundatis 35-45 × 13-17, octosporis; paraphysibus copiosis, filiformibus, hyalinis; sporidiis subdistichis, ellipsoideis, intus granulosis, hyalinis, dein fuscidulis, 9-13 × 6-8.

Hab. in foliis Fici erectæ, Tôchi-mura in prov. Tosa Japoniæ (Yoshinaga).

8. **Auerswaldia quercicola** P. Henn. in Hedw. 1904, pag. 142. — 2934
Stromatibus epiphyllis, innato-superficialibus, gregariis, carbonaceis, atro-nitentibus, rotundato-pulvinatis, levibus 1-2 mm. diam.; perithecis paucis immersis, globulosis; ascis clavatis, apice rotundatis, octosporis 90-130 × 12-18; paraphysibus copiosis, hyalinis filiformibus ca. 2-3 μ. crassis; sporidiis oblique monostichis vel distichis, ellipsoideis utrinque rotundatis, fusco-brunneis, basi subhyalino-papillatis 15-20 × 8-10; stromatibus conidiogenis æqualibus; basidiis ramosis, septatis 3-4 μ. crassis, hyalinis; sporulis acrogenis, fusoideis, medio 1-septatis, biguttulatis, 10-20 × 3,5-4.

Hab. in foliis Quercus thalassicæ in prov. Tosa Japoniæ (Yoshinaga).

9. **Auerswaldia quercina** G. Cam. in Revista Agronom. de Portugal. 2935
1903, n. 2, pag. 57, tab. VII, fig, 7 et tab. VIII, fig. 1-3. —
Maculis nullis; stromatibus epiphyllis, subhemisphæricis (raro hypophyllis, irregularibus), plerumque in rachide dispositis, sæpe confluentibus, subsuperficialibus, magnitudine varia 1-4 mm., loculis omnino prominulis, haud immersis, inæqualibus, numerosis, lenticularibus vel subconoideis, minutis, 130-180 × 60-80, ostiolo indistincto, contextu albo farctis; ascis oblongis, apice rotundatis,

stipitatis, octosporis 70-75 × 18-20, paraphysatis; sporidiis subcymbiformibus, levibus, continuis, pallide salmonicis, distichis. 18-25 × 10-12, granulosis.

Hab. in foliis vivis Quercus humilis. S. Martinho do Bispo, prope Coimbra Lusitaniæ.

10. **Auerswaldia maxima** Massee in Kew Bull. 1901, pag. 166. — 2936
Stromatibus disciformibus, erumpentibus, rotundatis, seu irregularibus, atris, opacis, multiloc ularibus 1-2 cm. latis; loculis dense congestis, immersis; ascis cylindraceis, octosporis, 120 × 10; sporidiis monostichis, ellipsoideis, continuis, brunneis, opacis 12 × 6-7.

Hab. in ramis emortuis in horto botanico Aburi, Gold Coast Africæ occident. — *Auersw. disciformi* Wint. affinis.

Sect. 3. Hyalodidymæ.

MICROCYCLUS Sacc. in Ann. Mycol. 1904, p. 165 (Etym. *micros* et *cyclos* ob stromata minuta circularia). — Stromata superficialia, minuta, disciformia, atra; loculis immersis. Asci octospori. Sporidia oblonga, 1-septata, hyalina. — A *Dothidella* differt stromate superficiali, disciformi, sæpius minuto.

I. *Eu-Microcyclus.* Stromata a matrice non secedentia.

1. **Microcyclus angolensis** Sacc. et Syd. Ann. Myc. l. c. — Stromatibus in greges usque 5 mm. diam. dispositis, plerumque hypophyllis, superficialibus, in folio vivo subimmutato nascentibus, exiguis, disciformibus, 250 μ. diam., applanatis, rugulosis, aterrimis; loculis pluribus globosis, 70-80 μ. diam., ostiolis non emergentibus clavulatis, apice rotundatis, breviter stipitatis, 50-64 × 12-15, octosporis; sporidiis distichis, oblongis, 1-septatis, loculo superiore latiore, hyalinis, 14-18 × 3½-5. 2937

Hab. in foliis vivis Milletiæ Thonningii, Angola Africæ (Welwitsch).

2. **Microcyclus scutula** (B. et C.) Sacc. l. c. = *Dothidella scutula* (B. et C.) Sacc. in Syll. II, p. 632.

3. **Microcyclus Osyridis** (Cke.) Sacc. l. c. = *Dothidella Osyridis* (Cke.) Berl. et Vogl., Addit. Syll. p. 240 — Syll. IX, p. 1038.

4. **Microcyclus Tassianus** Sacc., Syd. = *Dothidella Osyridis* subsp. *Tassiana* Sacc. in Bull. Soc. Myc. France 1896, p. 69 — Syll. XIV, p. 676.

5. **Microcyclus Bicchianus** (De Not.) Syd. l. c. = *Dothidella Bicchiana* (De Not.) Sacc. Syll. II, p. 633.
6. **Microcyclus Adenocalymmatis** (P. Henn.) Syd. l. c. = *Dothidella Adenocalymmatis* P. Henn. Hedw. 1895, p. 323 — Syll. XIV, p. 677.
7. **Microcyclus Mikaniæ** (P. Henn.) Syd. l. c. = *Dothidella Mikaniæ* P. Henn. in Hedw. 1902, p. 111. Cfr. infra p. 849.

II. *Chorisodothis* S. et S. Stromata facile secedentia.

8. **Microcyclus labens** Sacc. et Syd. Ann. Mycol. 1904, p. 165. — 2668
Stromatibus hypophyllis, superficialibus, immo facile secedentibus, disciformi-applanatis, ambitu suborbicularibus, 1 mm. latis v. confluendo latioribus, subcarbonaceis, opace nigris, superficie leviter colliculosa, intus imperfecte pluriloculatibus, pallidioribus, ostiolis non distinctis; ascis cylindraceo-clavatis, breve stipitatis, 50-80 × 11-14, octosporis; paraphysibus apice ramulosis, subcoalescentibus; sporidiis irregulariter distichis, ellipsoideis, utrinque rotundatis, hyalinis, 12-15 × 5-6, plasmate bipartito inæqualiter bilocularibus, denique leniter constrictis, loculo majore modo supero modo infero.

Hab. in foliis Eugeniæ spec., Concepcion in Chile frequens (F. W. Neger). — Ob stroma superficiale a matrice facile secedens et loculos et ostiola non distincta forte novi generis typus (*Chorisodothis* Sacc. et Syd.)

PLOWRIGHTIA Sacc. — Syll. II p. 635, IX. p. 1041, XI p. 376, XIV p. 680, XVI p. 628.

1. **Plowrightia Mali** Feltg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2939
p. 100 et Nachtr. I, p. 151, n. 449, *Plowrightia* spec. — Stromatibus erumpenti-subsuperficialibus, orbicularibus, nigris, 300–600 μ. diam., disco applanato, ostiolis 5-15 minutis, vix prominulis, punctato; ascis tereti-clavatis 110-120 × 12; sporidiis monosubdistichis, inæqualiter bi-cellularibus, utrinque acutulis, 25-35 × 7-8, hyalinis vel chlorinis.

Hab. in ramis emortuis Piri Mali, Luxemburg.

2. **Plowrightia noxia** Ruhl., Sacc. et D. Sacc. *Dothidea noxia* Ruhl. 2940
in Centralbl. f. Bakter. 1904, XII, p. 252. — Stromatibus per majorem partem innatis, per corticem fissum tuberculari-erumpentibus, æqualiter et densiuscule sparsis, non confluentibus, plerumque transverse oblongo-ellipticis v. suborbicularibus, vix emergentibus, peridermii laciniis plus minus tectis, atris minutis, $^1/_2$–$^2/_3$

raro 1 mm. latis; loculis 3-8-compluribus, plus minus peripherici, dense constipatis, parvis; ascis cylindraceo-clavatis, apice obtusatis, basi breviter tenuatis, 120-140 × 9-11,5; sporidiis oblique monostichis, rarissime subdistichis, fusoideo-oblongis, utrinque obtusatis v. obtusiusculis, 1-septatis. ad septum valde constrictis, utraque cellula binucleatis, hyalinis, 18,5-22 × 4,5-6.

Hab. in cortice vivo Quercus nec non Fagi et Castaneæ Meklemburg Germaniæ borealis, socio statu pycnidico *Fusicocco noxio* Ruhl. — Arboribus indicatis species vere noxia.

3. **Plowrightia circumscissa** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 187. — Maculis latis; stromatibus dense sparsis, nigris subcutaneis dein erumpentibus in areis circumscissis, irregulariter ovatis vel suborbicularibus, raro confluentibus 0,8-1 mm. diam., ostiolis 3-8 in quoque stromate vel compluribus; ascis stipitatis, aparaphysatis, 60-80 × 16; sporidiis subdistichis, ovatis, 1-septatis, hyalinis, 20 × 5. 2941

Hab. in foliis languidis Agaves spec, Longboat Key, Fla., Amer. bor.

4. **Plowrightia argentinensis** Speg. Myc. argent. ser. II, 1902, p. 76. — Stromatibus subsuperficialibus, a matrice cinerescente vel nigrefacta facile integre secedentibus 1-3 mm. diam. 0,5-1 mm. crass., superne planis sed etiam convexulis, inferne coarctatis applanatis, margine rotundatis non nitentibus, atris, carbonaceis opacis minutissime ostiolato-papillulosis; loculis numerosis ellipticis, 100-120 × 125-150; ascis clavulatis, breviter pedicellatis, paraphysatis 50-60 × 6-8, densiuscule paraphysatis; sporidiis oblique subdistichis, utrinque acutis, 16 × 3, sæpe subcurvulis, loculis subæquilongis grosse 1-guttulatis. 2942

Hab. ad culmos aridos Setariæ cujusdam prope Mendoza et in culmis subemortuis Gymnopogonis spec. pr. Rufino in Argentina. — Species eximia habitu fere *Hypocreæ* cujusdam, sed stromatibus atris, carbonaceis mox dignoscenda.

DOTHIDELLA Speg. — Syll. II p. 627, IX p. 1036, XI p. 375, XIV p. 676, XVI p. 626.

1. **Dothidella Melicyti** Syd. Ann. Myc. 1904, p. 164. — Stromatibus amphigenis, rotundatis vel subrotundatis, innatis, $^1/_2$-1 $^1/_2$ mm. diam., atris, rugulosis; loculis numerosis; ascis cylindraceo-clavatis, apice rotundatis, breviter stipitatis, 45-65 × 9-12, octosporis; sporidiis distichis, subnavicularibus v. subfusoideis, utrinque atte- 2943

nuatis, sed obtusiusculis, rectis vel leniter inæquilateris, medio 1-septatis, non constrictis, hyalinis, 20-24 ≈ 3 1/2-5.

Hab in foliis vivis Melicyti ramiflori, Highcliff. South Island Novæ Zealandiæ (L. Cockayne).

2. **Dothidella Serjaniæ** P. Henn. in Hedw. 1904, p. 87. — Stromatibus ramicolis, erumpenti-superficialibus, gregariis confluentibus, pulvinatis, fusco-brunneis, opacis, rugulosis, 2-5 mm. diam.; peritheciis immersis, subovoideis; ascis clavatis, apice rotundatis octosporis. 40-55 ≈ 10-16; sporidiis oblique monostichis vel distichis oblonge clavatis vel fusoideis, utrinque obtusis, rectis v. subcurvulis, medio 1-septatis paullo constrictis, hyalinis 12-18 ≈ 4-5,5. 2941

Hab. in ramulis Serjaniæ spec., Corcovado, Rio de Janeiro Brasiliæ (E. Ule).

3. **Dothidella Pterolobii** Rostr. in Bot. Tidsskrift Copenhagen, 1902, vol. 24, p. 212. — Stromatibus hypophyllis, oblongis, pulvinatis, fusco-nigris, 0,5-1 mm. longis; ascis obsoletis; sporidiis hyalinis, oblongo-clavatis, 1-septatis, 11-12 ≈ 4-5. 2945

Hab. in foliis Pterolobii Schmidtiani, Siam Asiæ merid.

4. **Dothidella lonchocarpicola** P. Henn. Fungi Amaz. II, p. 255. — Maculis fuscidulis effusis; stromatibus hypophyllis gregariis, innato-superficialibus, rotundato-pulvinatis, subplanis, atris, subnitentibus, ca. 0,3-0,4 mm. diam.; peritheciis paucis, immersis, globulosis, minute ostiolatis; ascis subfusoideis, apice attenuatis, rotundatis, 8-sporis, 60-70 ≈ 7-9; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis v. distichis, oblonge fusoideis utrinque acutis, rectis vel curvulis, guttulatis, medio 1-septatis vix constrictis, hyalinis, 15-22 ≈ 4-4 1/2. 2946

Hab. in foliis Lonchocarpi spec., Marary, Rio Juruá Amazoniæ. — Sporidia subinde simulate pluriseptata.

5. **Dothidella machæriophila** P. Henn. Fungi Amaz. p. 256. — Maculis flavido-brunneolis, rotundatis; stromatibus epiphyllis, gregarie sparsis, atro-carbonaceis, rotundato-pulvinatis, rugulosis, 1-1 1/2 mm. diam.; peritheciis subglobosis immersis; ascis subfusoideis vel subclavatis, apice obtusiusculis, 8-sporis, 50-70 ≈ 7-9; paraphysibus filiformibus; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel ovoideis, utrinque obtusis, medio 1-septatis, vix constrictis, 8-10 ≈ 4 1/2-5 1/2, atris. 2947

Hab. in foliis Machærii spec., Fortaleza, Rio Juruá Amazoniæ.

6. **Dothidella Piptadeniæ** P. Henn. Fungi Amaz. II, p. 254. — Ma- 2948

culis fuscidulis, effusis; stromatibus innato-epiphyllis gregariis, rotundato-pulvinatis, atro-nitentibus, minutis, ca. 250 μ. diam.; peritheciis singularibus vel paucis, immersis; ascis clavatis, apice rotundatis, 8-sporis, 50-70 × 12-17, paraphysibus filiformibus, hyalinis, ca. 1 ½ crassis; sporidiis oblique monostichis vel subdistichis, ovoideis, submedio 1-septatis, constrictis, cellula superiori majori, cellula inferiori subtriquetra subcurvula, 11-13 × 6-7.

Hab. in foliis Piptadeniæ spec. Tarapoto, Perù. — Stromate perexiguo *Stigmateam* in memoriam revocat.

7. **Dothidella Parkiæ** P. Henn. Fungi Amaz. II, p. 254 — Maculis 2949
fuscidulis effusis; stromatibus epiphyllis, erumpente-superficialibus, minutis, rotundato-pulvinatis, atro-nitentibus; peritheciis paucis immersis; ascis clavatis, rotundato-obtusis, 50-60 × 16-20, 8-sporis; paraphysibus filiformibus, hyalinis ca. 1 ½ μ. crassis; sporidiis subdistichis, fusoideis, acutiusculis, submedio 1-septatis, intus granulatis, 13-18 × 5-7.

Hab. in foliis Parkiæ spec., Rio Juruá Amazoniæ. — Stromata exigua non raro perithecium unicum foventia.

8. **Dothidella yapensis** Henn. in Hedw. 1902, pag. (64). — Maculis 2950
fuscidulis, rotundatis; peritheciis hypophyllis interdum epiphyllis, gregariis, rotundato-pulvinatis sæpe confluentibus 0,5-1 mm. diam., verrucoso-papillatis, carbonaceo-atris, opacis; peritheciis plerumque paucis, subglobosis; ascis oblonge clavatis, apice obtusiusculis, basi curvulis, octosporis 50-70 × 9-14; paraphysibus filiformibus hyalinis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel ovoideis, utrinque obtusis, hyalinis, medio 1-septatis, haud constrictis 7-10 × 4-5.

Hab in foliis vivis Derridis ellipticæ, Yap in insulis Carolinis (G. Volkens).

9. **Dothidella mararyensis** P. Henn. Fungi Amaz. III, 1904, p. 369. 2951
— Maculis flavo-brunneis, rotundatis; stromatibus innatis, amphigenis rotundatis, applanatis, atris, ca. 1-2 mm. diam.; ostiolis subhemisphæricis, nitentibus; peritheciis subglobosis; ascis clavatis v. subfusoideis, rotundatis v. subacutiusculis, 8-sporis, paraphysatis, 50-60 × 10-12; sporidiis obliquo monostichis vel distichis, oblonge fusoideis vel subclavatis, 2-3-guttulatis, primo continuis, deinde medio 1-septatis vix constrictis, 13-16 × 4 ½-5 ½, hyalinis.

Hab. in foliis Meliaceæ cujusdam, Marary, Rio Juruá Amazoniæ.

10. **Dothidella huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 369. 2952

— Maculis fuscidulis v. pallidulis, rotundatis; stromatibus innato-erumpentibus concentrice dispositis, hemisphæricis, rugulosis, atris, opacis, ca. 180-250 μ.; peritheciis immersis, subglobosis; ascis clavatis vel subfusoideis, 8-sporis, paraphysatis, 50-60 × 13-15; sporidiis oblonge clavatis, rectis v. curvulis, hyalinis, medio 1-septatis vix constrictis, hyalinis, 20-25 × 4-5.

Hab. in foliis Saururaceæ cujusdam Cerro de Escaler, Perù.

11. **Dothidella Arechavaletæ** Speg. Myc. argent. ser. II, 1902, p. 76. 2953
— Stromatibus amphigenis, hypophyllis vix prominulis tectis, epiphyllis magis prominulis, atris, innatis, subgloboso-lenticularibus, laxe gregariis, 0,3-0,5 mm. diam.; loculis in quoque stromate 1-5, globosis, e mutua pressione angulosis 100-120 μ. diam.; ascis apice obtuse rotundatis crassiusculeque tunicatis 60-65 × 10, brevissime pedicellatis, octosporis, aparaphysatis; sporidiis rectis v. leniter curvulis 22 × 4, utrinque subobtusiusculis, subclavulatis, medio 1-septatis, non v. constrictis hyalinis, an tandem 3-septatis atque chlorinis?

Hab. in foliis vivis Ocoteæ acutifoliæ prope Montevideo, in Uruguay.

12. **Dothidella Mikaniæ** P. Henn., Fungi S. Paulenses I, in Hedw. 2954
1902, p. 111. — Stromatibus epiphyllis sparsis, minutis, pulvinato-verrucosis, atris, subcarbonaceis, opacis, 0,3-0,8 mm. diam., peritheciis globulosis ca. 150-200 μ. diam.; ascis clavatis, apice obtusis, basi attenuato-stipitatis, octosporis, 50-65 × 12-16; paraphysibus filiformibus, hyalinis ca. 1,5 μ. cr.; sporidiis oblique monostichis vel distichis, ovoideis, ellipsoideis vel subfusoideis, medio 1-septatis, loculis 1-guttulatis, 10-14 × 4-5, hyalinis.

Hab. in foliis Mikaniæ pr. S. Paulo Brasiliæ. Cfr. supra p. 845.

13. **Dothidella Ulei** P. Henn. Fungi Amaz. II, p. 254. — Stromati- 2955
bus erumpenti-superficialibus cæspitose congestis, ovoideis, carbonaceo-atris, rugulosis, ca. $^1/_3$–3 mm. diam.; peritheciis paucis, ovoideis immersis; ascis clavatis, rotundato-obtusis, 8-sporis, paraphysatis, 50-80 × 10-16,; sporidiis subdistichis, oblonge clavatis, hyalinis, medio 1-septatis, haud constrictis, 13-20.

Hab. in foliis Heveæ brasiliensis, Rio Juruá Amazoniæ.

14. **Dothidella Coutoubeæ** P. Henn. Fungi Amaz. II, pag. 254. — 2956
Stromatibus epiphyllis gregarie sparsis, innato-erumpentibus, rotundato-pulvinatis, planis, atris, punctoideo-ostiolatis, ca. 1-2 mm. diam.; peritheciis immersis subglobosis v. ovoideis; ascis fusoideis, subobtusis, 8-sporis, 70-90 × 6-9; paraphysibus filiformibus, hyali-

nis, 1 μ. crassis; sporidiis oblique monostichis vel subdistichis, fusoideis vel ovoideis, medio 1-septatis vix constrictis, hyalinis, 10-12 ≈ 4 1/2-5 1/2.

Hab. in foliis Coutoubeæ guyanensis, Manáos, Rio Negro Amazoniæ.

15. **Dothidella Kusanoi** P. Henn. in Hedw. 1904, p. 143. — Maculis 2957
fuscidulis rotundatis ca. 5 mm. diam.; stromatibus erumpenti-superficialibus, epiphyllis, circulariter dispositis, minutis, hemisphærico-pulvinatis, carbonaceis, atris nitentibus; perithecciis 1- v. paucis ca. 200 μ. d. globulosis; ascis clavatis, obtuse rotundatis, 4-8-sporis, paraphysatis 80-90 ≈ 30-40; sporidiis subdistichis oblongis, utrinque rotundatis, ad basim 1-septatis vix constrictis, 25-35 ≈ 15-20 hyalinis.

Hab. in foliis Quercus glaucæ in Mt. Takao Japoniæ (Kusano).

16. **Dothidella betulina** (Fr.) Sacc. — Syll. II, p. 628. — var. **yaku-** 2958
tatiana Saccardo et Scalia, Harrim. Alaska Exped. Crypt. pag. 27. pl. V, fig. 15. — Stromatibus innato-erumpentibus, pulvinato-applanatis, subtilissime punctulatis, atris, 5 mm. diam.; loculis minutissimis, globulosis, 50 μ. diam., ostiolo pertusis; ascis oblongo-cylindraceis, apice rotundatis, deorsum nonnunquam incrassatulis, subsessilibus, 40-48 ≈ 10-12, octosporis; sporidiis subdistichis vel polystichis, obovato-cuneatis, apice rotundatis, basi acutatis, 1-septatis, non constrictis, eguttulatis, 10-12 ≈ 3-4, e chlorino hyalinis.

Hab. in foliis emortuis arboris ignotæ, Yakutat Bay Alaska (Trelease).

17. **Dothidella Heliconiæ** P. Henn. Fungi Amaz. p. 255. — Maculis 2959
effusis, fuscis; stromatibus gregarie erumpentibus, oblongis, ruguloso-verrucosis, atris, subcarbonaceis, 1-3 mm. diam.; perithecciis subglobosis verrucoso-papillatis; ascis clavatis, obtusis, 8-sporis, 70-75 ≈ 7-8; paraphysibus filiformibus, hyalinis; sporidiis subdistichis oblonge fusoideis vel clavatis, medio 1-septatis hyalinis 10-12 ≈ 3 1/2-4.

Hab. in foliis Heliconiæ spec., Rio Juruá Amazoniæ. — Ob exemplaria male evoluta species aliquantum incerta.

18. **Dothidella sclericola** P. Henn. Fungi Amaz. II, pag. 253. — 2960
Stromatibus amphigenis gregariis, innato-erumpentibus minutis, oblonge vel rotundato-pulvinatis, atro-nitentibus ca. 250 μ.; perithecciis paucis, immersis; ascis clavatis rotundatis, 8-sporis, 60-80 ≈ 12-17 paraphysatis; sporidiis oblique monostichis v. distichis ob-

longe fusoideis vel clavatis, subobtusis, 20–25 × 4 1/2–5 1/2, guttulatis, medio 1-septatis haud constrictis, hyalinis.

Hab. in foliis Scleriæ spec., prope Rio Juruá Amazoniæ. – Cum *Phyllachora Scleriæ* ascis late clavatis et sporidiis biloculariibus non confundenda.

19. **Dothidella minima** Sacc. et Syd. Ann. Mycol. 1904, pag. 164. — 2961
— Stromatibus sparsis vel laxe gregariis, plerumque hypophyllis, minutissimis, vix 250 μ. longis, innato-erumpentibus, applanatis, ambitu oblongo-quadraticis, nigris; loculis in quoque stromate pluribus, globulosis, 45–60 μ. diam.; ascis tereti-clavatis, apice rotundatis, breve noduloso-stipitatis, 45-50 × 8,5-9, octosporis aparaphysatis (?); sporidiis distichis vel oblique monostichis, fusoideo-oblongis utrinque obtusulis, 11-12 × 2 1/2–3, medio 1-septatis, non vel vix constrictis, hyalinis.

Hab. in foliis languidis Arundinariæ macrospermæ, New Orleans, Louisiana Americæ bor. — Minutie stromatis et loculorum mox dignoscitur.

20. **Dothidella tosensis** P. Henn. Pilze Jap. II, p. 152. — Stroma- 2962
tibus amphigenis, oblongis striiformibus, primo tectis dein erumpentibus, atris, ca. 0,5–1 mm. longis, 200–250 μ. latis; peritheciis sparsis, subglobosis, immersis; ascis cylindraceo-clavatis, obtusis breve stipitatis, 8-sporis, paraphysatis, 60-70 × 6-7; sporidiis oblique monostichis ellipsoideis vel ovoideis, obtusis, guttulatis, hyalinis, medio 1-septatis, 7-12 × 5-6.

Hab. in foliis Agrostidis perennantis, Komodsomura, Tosa Japoniæ.

21. **Dothidella platensis** Speg. Myc. argent. ser. II, 1902, p. 76. — 2963
Maculis nullis v. pallescentibus, effusis, indeterminatis; stromatibus amphigenis, elliptico-linearibus, opacis, levibus 0,5-1 mm. long. 0,2-0,3 mm. diam.; loculis constipatis, globosis, 150-200 μ. diam., ostiolo minutissimo non vel vix prominulo donatis; ascis cylindraceo-clavulatis dense paraphysatis 100-120 × 12-14; paraphysibus filiformibus; sporidiis monostichis vel distichis, rectis oblanceolatis v. subovatis, 22 × 8, medio-septatis, non constrictis, loculo supero obtusiusculo, infero acutissimo fere cuspidato.

Hab. ad folia viva Paspali platensis prope La Plata in Argentina.

22. **Dothidella Setariæ** Sacc. Notæ mycologicæ in Syd. Ann. Mycol. 2964
1903, n. 1, p. 25. — Stromatibus epiphyllis, dense gregariis, tenuibus, oblongis, brunneo-atris, vix 1/4 mm. long., superne strato

unico cellularum 5-7 μ. diam. formatis, intus (saltem initio) subunilocularibus; ascis clavato-oblongis, brevissime stipitatis, 48-55 × 13, spurie paraphysatis; sporidiis distichis oblongo-clavulatis medio 1-septatis constrictisque, 16 × 6, hyalinis, faretis; stromatibus pycnidicis similibus et intermixtis; sporulis oblongis, utrinque rotundatis, 10 × 3, biguttulatis, hyalinis, basidiis bacillaribus 10-12 × 2,5-3 suffultis.

Hab. in foliis adhuc vivis Setariæ glaucæ, Montello (Treviso) Italiæ borealis. — Status pycnidicus est *Phyllachora? Setariæ* Sacc. Syll. II, p. 623, *Placosphæria Setariæ* Sacc. nuncupandus.

23. **Dothidella Stübelii** P. Henn. Pilz. Costar. u. Parag. p. 148. — 2965
Stromatibus foliorum marginalibus, pulvinatis, atris, opacis, verrucosis ca. 0,3-0,5 mm. diam.; peritheciis immersis, hemisphæricoostiolatis; ascis clavatis, obtusis, 8-sporis, 45-60 × 7-10; paraphysibus filiformibus septatis; sporidiis oblique monostichis vel subdistichis, subclavatis vel subfusoideis, obtusis, subcurvulis, 8-11 × $2^1/_2$-$3^1/_2$, hyalinis, medio 1-septatis, haud constrictis.

Hab. in foliis Pteridis deflexæ, Bogota Columbiæ (A. Stübel).

ROSENSCHELDIA Speg. — Syll. IX p. 1036.

1. **Rosenscheldia paraguaya** Speg. — Syll. IX, pag. 1036. — Cfr. Speg., Not. synonym. p. 9, in Ann. Mus. Nac. Buen. Ayres 1903, tomo IX. — Huc spectat *Ophioceras Hyptidis* Henn. (1897), teste cl. Spegazzini l. c.

Sect. 4. Phæodidymæ.

DOTHIDEA Fr. — Syll. II p. 639, IX p. 1043, XI p. 377, XIV p. 680, XVI p. 628.

1. **Dothidea papilloideo-septata** P. Henn. Fungi Amaz. II, p. 256. — 2966
— Maculis rotundatis fusco-brunneis, subconcavis; stromatibus hypophyllis sparsis, subatro-carbonaceis, rotundato-pulvinatis, 2-3 mm. diam., ruguloso-verrucosis, ostiolis subacutis; peritheciis immersis, subglobosis; ascis clavatis, apice rotundatis, 8-sporis, 30-50 × 7-13; paraphysibus filiformibus; sporidiis oblique monostichis v. distichis oblonge ovoideis v. ellipsoideis, rectis v. subcurvulis, utrinque obtusis, ad basim 1-septatis, constrictis, loculo superiore

majusculo, loculo inferiore subpapillato, ca. 3 μ., rufo-brunneis, 10-13 × 4-5½.

Hab. in foliis Sapindaceæ cujusdam Marary, Rio Juruá Amazoniæ. — Sporidiis basi septatis prædistincta species.

2. **Dothidea Centrolobii** P. Henn. Fungi Amaz. II, p. 255. — Ma- 2967
culis fuscidulis vel obsoletis; stromatibus epiphyllis, pulvinatis v. subhemisphæricis, rugulosis, carbonaceis, atro-castaneis, opacis, 1-2 mm. diam.; peritheciis immersis, subglobosis; ascis clavatis, obtusis, 8-sporis, 60 80 × 8-13; paraphysibus filiformibus, hyalinis, 1½ μ. crassis; sporidiis oblique monostichis vel subdistichis, ellipsoideis vel subovoideis, utrinque rotundatis vel subapplanatis, medio 1-septatis, atro-castaneis, 8-13 × 5-7.

Hab. in foliis Centrolobii spec. Tarapoto, Perú. — A *Phyllachora centrolobiicola* stromatibus rugosis atro-brunneis mox distincta.

3. **Dothidea tubaraoensis** P. Henn. in Hedw. p. 88. — Stromatibus 2968
corticolis, innato-erumpentibus, sparsis vel gregariis confluentibusque, subhemisphærico-pulvinatis, rugosis, atro-fuscis 1-3 mm. diam.; peritheciis immersis, subglobosis; ascis cylindraceo-clavatis, obtusis, octosporis, 70-90 × 8-12; paraphysibus copiosis, hyalinis, filiformibus 1,5-2 μ. crassis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, medio 1-septatis, haud constrictis 11-15 × 5-7, atro-castaneis.

Hab. in corticibus Leguminosæ cujusdam, Tabarao, St. Catharina Brasiliæ (E. Ule).

4. **Dothidea mauaensis** P. Henn. in Hedw. 1904, p. 88. — Maculis 2969
fuscidulis rotundatis; stromatibus hypophyllis superficialibus rotundatis, applanatis v. subglobosis, rugulosis, atro-castaneis subnitentibus vel opacis c. 1-4 mm. diam.; peritheciis immersis subglobosis; ascis clavatis apice rotundatis, 60-90 × 12-16; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis vel distichis, ellipsoideis, primo hyalinis, continuis, dein medio 1-septatis, constrictis, brunneis, 8-12 × 5 8.

Hab. in foliis Dalbergiaceæ cujusdam, Maua, Rio de Janeiro Brasiliæ.

5. **Dothidea orgaosensis** P. Henn. in Hedw. 1904, p. 87. — Maculis 2970
flavidulis explanatis; stromatibus innato-epiphyllis, gregariis, interdum paginam omnino tegentibus confluentibusque, rotundato-pulvinatis, atro-nitentibus, ca. 1 mm. diam.; peritheciis immersis subglobosis; ascis clavatis, apice obtusis, octosporis, 100-150 × 9-12;

paraphysibus copiosis hyalinis; sporidiis oblique monostichis, ovoideis, superne rotundatis, medio vel ad basim 1-septatis, constrictis, castaneis 12–17 × 5–7.

Hab. in foliis Eugeniæ spec., Serra dos Argaos, Rio de Janeiro Brasiliæ (E. Ule).

6. **Dothidea juruana** P. Henn. Fungi Amaz. III. 1904, pag. 369 — Maculis subrotundatis vel effusis, fuscidulis; stromatibus gregariis sæpe confluentibus, subcirculatim dispositis v. nervos sequentibus, subhemisphærico-pulvinatis, rugulosis, ca. 150–250 μ., atris, opacis; perithecis subglobosis; ascis clavatis, apice rotundatis, paraphysatis, 8-sporis, 55–70 × 7–10; sporidiis oblique monostichis v. subdistichis, subclavatis, obtusis, primo hyalinis, continuis, dein flavido-brunneolis, medio 1-septatis, 13–15 × 4½–5. 2971

Hab. in foliis Ebenaceæ cujusdam Marary, Rio Juruá Amazoniæ (E. Ule).

7. **Dothidea Daphnopsidis** P. Henn. in Hedw. 1904, p. 87. — Maculis subsanguineis vel obsoletis; stromatibus amphigenis, erumpenti-superficialibus, rotundato-lenticularibus vel pulvinatis, rugulosis, atro-nitentibus, punctato-ostiolatis, ca. 2-4 mm. diam.; perithecis immersis, numerosis, prominulis, ovoideis; ascis clavatis, vertice rotundatis ca. 90-120 × 12-15, octosporis; paraphysibus copiosis, hyalinis, apice 3 μ. cr.; sporidiis oblique monostichis vel subdistichis oblonge ellipsoideis, primo 2-4-guttulatis, continuis, hyalino-flavidulis dein medio 1-septatis, constrictis, atro-castaneis 13-18 × 6-7,5. 2972

Hab. in foliis Daphnopsidis spec., Tjiuca, Rio de Janeiro Brasiliæ (E. Ule).

PHÆODOTHIS Syd. Ann. Mycol. 1904, p. 166 (Etym. *phaios* ater et *dothis* pro Dothidea) — Stromata innata, effusa, subplana, atra, loculi immersi. Asci octospori. Sporidia oblonga, 1-septata, colorata. — A *Dothidella*, cui proxime accedit, differt sporidiis coloratis, nec hyalinis.

1. **Phæodothis Tricuspidis** Syd. l. c. — Stromatibus in utraque folii pagina conspicuis, maculis pallescentibus indeterminatis insidentibus vel folia tota infecta decolorantibus, sparsis v. sæpe seriatim dispositis confluentibusque, solitariis ellipticis vel oblongis usque 1 mm. longis, confluentibus usque ¾ cm. longis, innatis, atris, opacis vel vix subnitentibus; ascis cylindraceis, apice rotundatis, 2973

breviter stipitatis, 62–75 × 9–11, octosporis; sporidiis oblique mono- v. subdistichis, fusiformibus, medio 1-septatis, leniter constrictis, utrinque attenuatis, sed apicibus obtusis, olivaceo-brunneis, 13–17 × 4½–5.

Hab. in foliis Tricuspidis latifoliæ, San José, Salta Argentinæ (P. G. Lorentz).

2. **Phæodothis caaguazuensis** Speg., Syd. = *Dothidella caaguazuensis* Speg. — Syll. IX, pag. 1039. — Sporidia ex hyalino dilute fusca vel chlorina, elongato-clavulata.

3. **Phæodothis effusa** (A. L. Smith) Syd = *Dothidella effusa* A. L. Smith — Syll. XIV, p. 678. — Sporidia fusca.

4. **Phæodothis Yuccæ** (Ell. et Ev.) Sacc. *Dothidea Yuccæ* Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 19. — Huc ducenda est *Phyllachora? Yuccæ* Ell. et Ev. — Syll. XIV, p. 670. — Stromatibus amphigenis, folii parenchymate immersis; ascis oblongo-cylindraceis 75–80 × 10–12; sporidiis biseriatis, ovato-oblongis, lutco-brunneis 1-septatis, 12–15 × 5–6, ad septa constrictis. Cetera ut in diagnosi Syll. l. c.

Hab. in foliis Yuccæ angustifoliæ, Manitou, Colorado, Amer. bor. (E. T. Harper).

HYPOXYLOPSIS P. Henn. Fungi Amaz. II, p. 256 (1904). Etym. *Hypoxylon* et *opsis* aspectus. — Stromata crasse pulvinata, tuberculata, subligneso-coriacea, nigricantia. Perithecia immersa, ostiolata. Asci cylindracei, 8-spori paraphysati; sporidia ellipsoidea, 1-septata, fusca. — *Plowrightiæ* et *Dothideæ* affinis sed stromata diversa, *Hypoxylo* simillima.

1. **Hypoxylopsis Huræ** P. Henn. l. c. cum icone. — Stromatibus trunc[illegible]cicolis, erumpenti-superficialibus, subligneso-coriaceis, firmis, duris, convexo-pulvinatis, crassis, rugoso-tuberculatis, atrovinoso v. atro-fuscis, pruinosis ca. 5 mm. 4 cm. diam., ostiolis subhemisphærico-prominulis, atris; peritheciis immersis, subglobosis vel ovoideis; ascis cylindraceo-clavatis, apice rotundatis, 8-sporis, 70–80 × 7–10; paraphysibus filiformibus, hyalinis, 2–3 μ crassis; sporidiis oblique monostichis, ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictis, 8–13 × 6–8, atro-castaneis; contextu atrovinoso [illegible] eo.

Hab. in truncis emortuis Huræ crepitantis, B. m. Fm, Rio Juruá Amazoniæ. — Facies *Hypoxyli* sed falcina [illegible]. Ubi succum vinosum exsudat.

MAURODOTHIS Sacc. et Syd. Ann. Mycol. 1904, pag. 166 (Etym. *mauros* nigrita et *dothis* poro Dothidea). — Stromata superficialia v. subsuperficialia, minuta, disciformia, atra; loculi immersi. Asci octospori. Sporidia oblonga, 1-septata, colorata. — A *Phæodothide*, cui sporidiis similis, differt stromate superficiali, disciformi.

1. **Maurodothis Alyxiæ** Sacc. et Syd. l. c. — Stromatibus hypophyllis, superficialibus, aterrimis, concentrice dispositis, centralibus latioribus, applanatis, usque 1 mm. latis, plurilocellatis, periphericis minoribus 1-2-locellatis, omnibus ostiolis obtusis nitidis præditis; ascis clavato-saccatis, apice rotundatis, breviter stipitatis, 52-70 × 18-28, octosporis; sporidiis distichis vel tristichis, constricto-didymis, utrinque rotundatis, ex hyalino brunneis, 21-24 × 8-10 1/2; paraphysibus filiformibus. 2975

Hab. in foliis Alyxiæ buxifoliæ, Australia (R. Brown). — An *Doth. Alyxiæ* Mass. eadem sit, ob diagnosim insufficientem dubium manet. Genera *Dothideacearum didymospora* ita distinguuntur:

	I. *Sporidia hyalina.*	II. *Sporidia colorata.*
Stroma sepius effusum, innatum	Dothidella Speg. Munkiella Speg.	Phæodothis Syd.
Stroma disciforme, superficiale.	Microcyclus Sacc.	Maurodothis Sacc. et Syd.
Stroma innatum, erumpens, pulvinatum.	Rosenscheldia Speg. Plowrightia Sacc.	Dothidea Fr. Roussoella Sacc.

Sect. 5. Hyalophragmiæ.

DARWINIELLA Speg. — Syll. IX p. 1048.

1. **Darwiniella gracilis** Speg. Myc. argent. ser. II, 1902, p. 77. Huc 2976
duceuda est *Dothidella? gracilis* Speg. — Syll. II, pag. 633. — Sporidiis maturis tandem 3-septatis, 22-24 × 4-5, ad septa leniter constrictis, utrinque obtusiusculis, hyalinis v. leniter subchlorinis; ascis subcylindraceis, 70-80 × 8-10, paraphysibus paucissimis obvallatis.

Hab. ad folia viva Acnisti cujusdam, in dumetis prope Cafayate Argentinæ.

Sect. 6. Phæophragmiæ.

HOMOSTEGIA Fuck. — Syll. II, p. 649, IX p. 1049, XIV p. 683, XVI p. 631.

1. **Homostegia leucosticta** Pat. in Duss, Enum. Champ. Guadel. 1903, p. 78. — Stromate orbiculari peridermio immerso, vix emergente, nigro, supra plano, 5 mm. ostiolis late apertis albo-punctato; peritheciis ovoideis, numerosis, 130-160 μ. diam., nucleo albo; ascis cylindraceis, 60-80 × 12-14, octosporis, copiose filiformi-paraphysatis; sporidiis ovoideis, non constrictis, 10-14 × 5-7, diu incoloribus, demum fuligineis, 2-3-septatis, loculis guttulam lucidam continentibus. 2977

Hab. in truncis vetustis putridis, Sainte-Rose Guadalupæ (Duss).

RHOPOGRAPHUS Nitschke — Syll. II p. 647, XI p. 378, XVI p. 630.

I. *Eu-Rhopographus.*

1. **Rhopographus Chamæmori** E. Rostr. Rorske Ascom. 1904, p. 13 (Vidensk. Skrift.). — Stromatibus innatis, gregariis vel confluentibus, nigris, oblongis v. breve lineatis, depressis, minutis; loculis immersis; ascis cylindraceis 100-115 × 10-12; sporidiis monostichis, oblongo-ellipsoideis initio didymis, hyalinis, dein 3-septatis, flavidis, 18-20 × 7-10, sæpe utrinque hyalino-appendiculatis. 2978

Hab. in caulibus Rubi Chamæmori, Gjelfos Norvegiæ.

2. **Rhopographus caulincola** Oud. Nederl. Kruidk. Arch. 1902, II, p. 712. — Stromatibus sub epidermide atrata et nitida nidulantibus ex loculis minutis compositis, parenchymaticis impellucidis, longitudinaliter dispositis 2-3 cm. longis 0,5-1 cm. latis, subinde confluentibus, primo levibus, dein colliculosis, loculis inæqualiter dispositis 0,5-1 mm. diam., partim ascigeris, partim pycnidicis; ascis cylindraceis 80-100 × 7, spurie paraphysatis, octosporis; sporidiis fusoideis, curvis, utrinque acutis, 3-septatis, non constrictis 23 × 3,5 pallide olivaceis; sporulis orbicularibus 2-2,3 μ. diam. melleis. 2979

Hab. in caule Umbelliferæ cujusdam indet., Valkenberg Hollandiæ (J. Rick.).

3. **Rhopographus Bakeri** Earle in New York Bot. Gard. 1902, p. 350. — Stromatibus subsuperficialibus, interdum confluentibus, nigris 2980

1–1,5 mm. long. 350-500 μ. crass.; peritheciis 2-3 in quoque stromate, subprominentibus; ascis cylindraceis 40-50 × 8; paraphysibus filiformibus; sporidiis distichis, subcylindraceis, fuscis 3-septatis, valde constrictis, cellula mediana majore, 16 × 4.

Hab. in caulibus plantæ ignotæ, Massinga, prope Santa Marta, Columbia, Amer. austr. (C. F. Baker.).

II. *Rhopographella* P. Henn. Sporidia subhyalina.

4. **Rhopographus Gaduæ** P. Henn. Fungi Amaz. II, p. 257, c. icon. 2981
— Stromatibus culmicolis striiforme erumpentibus, pulvinato-effusis, confluentibus oblonge pulvinatis, crassis, atris, rugulosotuberculatis vel rimosis, usque ad 5 cm. longis, ostiolis hemisphærico-prominulis; peritheciis immersis, subglobosis; ascis cylindraceo-clavatis, apice rotundatis, 8-sporis, 120-160 × 15-20; paraphysibus filiformibus, fasciculatis, hyalinis, ca. 2 μ. crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoideis, mucosis, 25-35 × 5–6, utrinque rostratis, rostro 5-6 × 2, 3-dein 5-septatis, subconstrictis, hyalino-cyanescentibus.

Hab. in culmis Gaduæ, Juruá-Miry, Rio Juruá Amazoniæ.

5. **Rhopographus Gynerii** P. Henn. Fungi Amaz. III, p. 369, 1904, 2982
cum icon. — Maculis fuscidulis; stromatibus amphigenis gregariis lineare vel striiforme erumpentibus, epidermide pallida rimosa velatis, ca. 2-2½ mm. longis subatris, subhemisphærico-ostiolatis, peritheciis globulosis seriatis; ascis subfusoideo-clavatis, 8-sporis, 60 × 90 × 10-14; paraphysibus filiformibus, hyalinis, ca. 2 μ. crassis; sporidiis oblique monostichis vel subdistichis, oblonge fusoideis, utrinque subobtusis vel subacutiusculis, 4-guttulatis, dein 3-septatis paullo constrictis, hyalinis, haud flavescentibus, 17-20 × 3½-4.

Hab. in foliis Gynerii saccharoidis, Juruá-Miry, Rio Juruá Amazoniæ.

Sect. 7. Phæodictyæ.

CURREYA Sacc. — Syll. II p. 651, IX p. 1051, XI p. 378, XIV p. 684, XVI p. 632.

1. **Curreya rhoina** Fellg. Vorstud. Pilz. Luxemb. 1901, Nachtr. II, 2983
p. 101. — Stromatibus sparsis, erumpentibus, epidermide rupta demum cinctis, subrotundis vel ellipsoideis, plano-convexis, atro-brunneis, 1–1,5 mm. long. et 100-300 μ. alt., intus griseo-flavidis;

peritheciis (loculis) parcis, subsuperficialibus, subglobosis, pallidis, ostiolis punctiformibus. demum umbilicatis, vix emergentibus; ascis cylindricis, apice rotundatis, breve crasse stipitatis, octosporis, 68-86 × 8,5-10,5; sporidiis 1-2-stichis, oblongo-ellipsoideis, rectis, 5-septato-muriformibus, medio profundius constrictis, pallide flavis 15,5-21 × 7-8,5.

Hab. in ramis corticatis Rhois typhinæ, Luxemburg. — Forte *Dothiora cellulosa* (Wallr.) Sacc. cum hac specie collidit. Status secundarios describit Feltg. l. c.

Sect. 8. Scolecosporæ.

MYRIOGENOSPORA Atk. — Syll. XIV p. 685.

1. **Myriogenospora Bresadoleana** P. Henn. Fungi blumenavienses II, in Hedw. 1902, p. 9. — Stromatibus innatis, longe striiformibus atris, usque ad 5 cm. longis, ca. 1 mm. latis, intus pallidis; peritheciis immersis parallelis, ovoideis vix prominulis; ascis cylindraceis, utrinque attenuatis, apice rotundatis, 130-180 × 5-7; sporidiis innumeris conglobatis, longe fusoideo-acicularibus, utrinque acutiusculis, pluriguttulatis, hyalinis, 26-38 × 1,5-2. 2984

Hab. in foliis Paspali, St. Catharina Brasiliæ austr.

OPHIODOTHIS Sacc. — Syll. II p. 652, IX p. 1051, XIV p. 685, XVI p. 632.

Subgen. *Ophiodothella* P. Henn. Asci apice tenuati, nec subcapitati.

1. **Ophiodothis atro-maculans** P. Henn. Fungi Amaz. p. 258, cum icone. — Maculis amphigenis effusis atro-crustaceis, stromatoideis, folium plus minus tegentibus, stromatibus gregariis amphigenis, rotundato-pulvinatis, atro-nitentibus, ca. 250-300 mm. diam.; peritheciis paucis vel singularibus, immersis, subglobosis, papillatis; ascis fusoideis, apice attenuatis, rotundatis, substipitatis, 8-sporis, 50-70 × 5-8; paraphysibus sparsis filiformibus; sporidiis parallelis, longitudine asci, filiformibus, hyalinis, pluriguttulatis, dein plurisseptatis, 1 ½-2 μ. crassis. 2985

Hab. in foliis Lonchocarpi sp., Rio Juruá, Marary Amazoniæ.

Fam. 5. **Coccoideaceæ** P. Henn. Hedw. XLIII, 1904, p. 143.

Stromata puncto centrali stipitiformi basi matrici affixa, ceterum libera; viva subcarnosa, sicca subcornea. Loculi pariete proprio distincto carentes. — Peculiari in matrice insertione a Dothideaceis distinguitur familia, quæ ad Myriangiaceas nutat. Genus primarium: *Coccoidea* P. Henn. — Syll. vol. XVI p. 624.

Sect 1. Phæosporæ.

COCCODISCUS P. Henn. in Hedw. 1904, p. 144. (Etym. *coccus* granum et *discus*). — Stromata subcarnosa, discoideo-rotundata, inferne medio substipitato-affixa, atra. Perithecia (loculi) immersa, globulosa. Asci clavati, octospori, paraphysati; sporidia ovoidea, continua, basi papillata, fusca.

1. **Coccodiscus quercicola** P. Henn. l. c. — Stromatibus hypophyllis 2986
sparsis, subcarnosis rotundato-discoideis, inferne medio affixis, margine liberis 1,5-2 mm. diam., atris, superne planis, minute granulatis; peritheciis immersis, globulosis; ascis clavatis, stipitatis, octosporis 60-90 × 14-20; paraphysibus copiosis filiformibus, hyalinis, ca. 1. μ. crassis; sporidiis subdistichis vel conglobatis, interdum oblique monostichis, ovoideis, basi subhyalino-papillatis, 1-guttulatis, atro-fuscidulis, 8-11 × 5,5-8.

Hab. in foliis vivis Quercus thalassicæ, Ushiseyama in prov. Tosa Japoniæ (Yoshinaga).

Sect. 2. Hyalodidymæ.

YOSHINAGAIA P. Henn. in Hedw. 1904, p. 143 (Etym. a cl. botanico Yoshinaga japonico). — Stromata e subcarnoso cornea, disciformi-pulvinata, erumpenti-superficialia, medio substipitato-affixa, atra. Perithecia (loculi) immersa, globulosa, subverruciformi-ostiolata. Asci octospori, paraphysati; sporidia fusoidea, hyalina, 1-septata.

1. **Yoshinagaia Quercus** P. Henn. l. c. — Stromatibus gregarie 2987
epiphyllis, erumpenti-superficialibus, rotundato pulvinatis, medio affixis, verruculoso-rugulosis, atris, 1 mm. diam.; peritheciis immersis, globulosis; ascis fasciculatis, clavatis, apice rotundatis, tu-

nicatis, octosporis 70-120 × 13-18; paraphysibus subfiliformibus, ca. 4 μ. crassis, hyalinis; sporidiis subdistichis fusoideis vel subclavatis, plerumque 4-guttulatis, acutis, medio 1-septatis (an deinde pluriseptatis?) hyalinis, 20-40 × 4-8.

Hab. in foliis vivis Quercus glaucæ, Kochi, Tosa Japoniæ (Yoshinaga).

Fam. 6. Microthyriaceæ.

Subfam. 1. **Microthyrieæ** Sacc. et Syd.

Sect. 1. Hyalosporæ.

MYIOCOPRON Speg. — Syll. II p. 659, IX p. 1053, XI p. 379, XIV p. 686, XVI p. 633.

1. **Myiocopron denudans** Rehm, Hedw. 1903. p. (292). — Peritheciis 2988
in utraque foliorum parte gregariis, sessilibus, dimidiato-scutatis, orbicularibus, nigris, ex hyphis radiantibus 3 μ. cr., fuscis, septatis, prosenchymatice contextis, poro haud conspicuo, glabris 100-120 μ. diam.; ascis clavatis, sessilibus, apice rotundatis 35-40 × 7-8, octosporis; sporidiis elongato-fusoideis, rectis, 1-cellularibus, guttulas oleosas 2-4 includentibus, hyalinis, 12-15 × 2-2,5, distichis; paraphysibus filiformibus, septatis 1,5 μ. diam., apice 3 μ. cr. hyalinis.

Hab. in foliis putridis fagineis in Saxonia (Feurich), in horto Neufriedenheim Monacensi (Doct. Rehm). — Hymenium in hypothecio parenchymatico, hyalino positum atque plene evolutum, perithecio uno latere operculatim subelevato, dein denudatum.

Sect. 2. Phæosporæ.

VIZELLA Sacc. — Syll. II p. 662. IX p. 1054.

1. **Vizella Hieronymi** Wint. — Syll. IX, pag. 1054. — var. **Coffeæ** 2989
Maublanc, Bull. Soc. Mycol. 1904, p. 71, t. VII, f. 6. — Peritheciis superficialibus, epiphyllis, greges minutos formantibus, depresse conoideis, atris, ostiolo minuto pertusis; ascis oblongis, octosporis, paraphysatis, 65 × 70 × 12-14; sporidiis inordinatis, oblongis, basi subtenuatis, fuscis, supra medium linea alba notatis, ad basim appendicula brevi, subhyalina ornatis, 13-15 × 5-6.

Hab. in foliis Coffeæ in Mexico (Herrera). — Observante cl. Maublanc, species et varietas prædictæ ob vittas albas transversas sporidiorum a typo *Vizellæ* forte separandæ.

Sect. 3. Hyalodidymæ.

MICROTHYRIUM Desm. — Syll. II p. 662, IX p. 1055, XI p. 379, XIV p. 687, XVI p. 635.

1. **Microthyrium microscopicum** Desm. — Syll. II, p. 662. — var. **Dryadis** Rehm, Ascom. exs. n. 1571, Ann. Mycol. 1904, p. 520. — Peritheciis in maculis fuscidulis insidentibus, epiphyllis, 70-90 µ. diam., poro pertusis, hyphis rectangulariter ramosis, septatis, 3-4 µ. cr., interdum hyphopodia oblonga vel triloba, continua 6 × 4-5 gerentibus cinctis; ascis oblongo-piriformibus 25 × 7-8, octosporis filiformi-paraphysatis: sporidiis oblongis, utrinque obtusis, medio subconstricto-1-septatis, 8 × 2-2,5, distichis, strato tenui mucoso obvolutis. 2990

Hab. in foliis adhuc pendulis Dryadis octopetalæ in Alpibus bavaricis.

2. **Microthyrium Uvariæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 47. — Peritheciis epiphyllis, sparsis, discoideis, atris, membranaceis, rugulosis, 0,3-0,6 cm. diam., lobato-rimosis, contextu radiato-cellulosis, fusco-brunneis; ascis ovoideis vel ellipsoideis, vertice rotundatis, truncatis, octosporis, 35-50 × 25-30; sporidiis ellipsoideis vel oblonge ovoideis, rectis vel curvulis, utrinque rotundatis, 1-septatis, intus granulosis, 18-24 × 8-10. 2991

Hab. in foliis Uvariæ Kirchii, Dar-es-Salam-Zanzibar Africæ orient.

3. **Microthyrium Styracis** Starb. in Arkiv. för Botan. 1904, Band 2, p. 12. — Peritheciis sparsis v. sparse gregariis, interdum nonnullis confluentibus, maculas non efformantibus, scutellatis, orbicularibus, centro pertusis, margine inæquali v. irregulariter lobulato, nigris, trans lucem fuligineis, contextu reticulato-prismatico, 100-200 µ. diam., ascis late clavatis, sursum fere truncatis, 31-38 × 5,5-7,5; sporidiis octonis distichis, clavulatis, primo guttatis, dein supra medium 1-septatis, loculo sup. rhombiformi, acutiusculo, inf. cylindrico-clavulato, obtusiusculo, hyalinis 11-12 × 4,5-5; paraphysibus nullis. 2992

Hab. ad folia Styracis, Piratiny, Rio Grande do Sul Brasiliæ.

4. **Microthyrium Hederæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 2993
1903, pag. 310. — Peritheciis sparsis, sessilibus, applanato-hemisphæricis 200-250 μ. diam., nigricantibus, poro pertusis, radiato-contextis, margine vix fimbriatis; ascis oblongo-ellipsoideis, utrinque rotundatis 40-50 × 10-11, octosporis; sporidiis distichis, cylindraceis, utrinque rotundatis 2-4-guttulatis, continuis (an semper?), hyalinis 10 × 2,7-3,5.

Hab. in ramulis corticatis, emortuis Hederæ Helicis, Luxemburg. — Paraphyses non observatæ.

5. **Microthyrium Melaleucæ** P. Henn. in Hedw. 1903, pag. (78). — 2994
Peritheciis amphigenis, dimidiato-scutellatis, atris, 0,3-0,7 mm. diam., radiato-cellulosis; ascis ovoideis, apice tunicatis, rotundatis, basi curvulis attenuatis, 8-sporis, 16-20 × 7-8; sporidiis clavatis v. oblonge ovoideis, 1-septatis, haud constrictis, hyalino-chlorinis 8-10 × 2-2,5.

Hab. in foliis coriaceis Melaleucæ Leucadendri, Barron M. Queensland Australiæ (Pritzel).

6. **Microthyrium Eucalypti** P. Henn. F. Austral. occ. II, in Hedw. 2995
1901, p. 352. — Maculis nullis; peritheciis amphigenis, sparsis, mycelio repente, filis brunneolis, brevibus, subtorulosis ca. 3-4 μ. cr. circumdatis, dimidiato-subpulvinatis, orbicularibus, atro-castaneis, punctulatis, 250-300 μ. diam., centro obtuse subostiolatis, pertusis, dein subtrilobato dehiscentibus; ascis clavatis, apice obtuse rotundatis, basi attenuato-substipitatis, octosporis, 80-100 × 18-22; sporidiis subdistichis, mucosis, fusoideis, utrinque subacutiusculis, medio 1-septatis, hyalinis vel minute flavidulis, 20-25 × 4-5,5.

Hab. in foliis vivis Eucalypti santalifoliæ prope Cranbrook Australiæ occid.

7. **Microthyrium cantareirense** Henn. in Hedw. 1902, pag. 300. — 2996
Peritheciis orbiculari-scutellatis, epiphyllis, gregariis, contextu atro-membranaceo, radiato, poro pertusis, 300-350 μ. diam., radiatim rimosis, hyphis fuscis, septatis 3,5-4,5 μ. circumdatis; ascis oblongo ellipsoideis vel clavatis, apice obtuso-rotundatis, crasse tunicatis, octosporis, 60-75 × 20-35; sporidiis subdistichis, ovoideis, 1-septatis, valde constrictis, hyalinis, dein fuscidulis 20-24 × 13-15.

Hab. in foliis Myrtaceæ cujusdam, Serra da Cantareira, pr. S. Paullo Brasiliæ.

8. **Microthyrium Coffeæ** P. Henn. Notizbl. bot. Gart. Berl. 1903, 2997
p. 240. — Peritheciis epiphyllis, sparsis, dimidiato-scutatis, mem-

reticulate ascomata"

branaceis, rugulosis, medio elevato-applanatis, atris, radiato-cellulosis vel reticulatis, 0,5-0,7 μ. diam.; ascis ovoideis vel clavatis, apice rotundatis, crasse tunicatis, 8-sporis, 58-65 × 25-40, aparaphysatis; sporidiis subdistichis vel conglobatis, oblongis, utrinque obtuse rotundatis, curvulis, intus granulatis, hyalinis, medio 1-septatis, haud constrictis, 30-40 × 10-12.

Hab. in foliis vivis Coffeæ libericæ, Ngomini in Africa or. (Zimmermann). — Sporidiis magnis prædistincta species, quæ nonnullis notis ad *Clypeolum megalosporum* nutat.

9. **Microthyrium Platani** Richon. — Syll IX, p. 1061 (nomen) — secundum Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 310: — Peritheciis subgregariis plano-convexis, poro minuto pertusis, radiato-contextis, margine non fimbriatis, 100-130 μ. latis; ascis clavatis, sessilibus, 40-48 × 5-7; sporidiis 2-3-stictis, ovoideo-fusiformibus, sæpe inæquilateralibus, eguttulatis, 8-10 × 2,5-3,5. 2998

Hab. in foliis et petiolis Platani orientalis, Luxemburg.

10. **Microthyrium Harrimani** Saccardo, Harrim. Alaska Exped. Crypt. p. 26, pl. II, fig. I. — Peritheciis densiuscule gregariis, superficialibus, dimidiatis, omnino applanatis, orbicularibus, 350-450 μ. diam., subinde binato-approximatis, ostiolo centrali pertusis, margine fimbriatis, contextu distincte parenchymatico, radiato; ascis tereti-fusoideis, utrinque obtusulis, 80-100 × 9-10, octosporis; paraphysibus parcis, sæpe furcatis; sporidiis 2-3-stichis, clavato-fusiformibus, utrinque acutiusculis, infra medium 1-septatis, non constrictis hyalinis. 2999

Hab. in squamis morientibus strobili Tsugæ heterophyllæ Orca Alaska ('Trelease). — Affine *M. Abietis* Mont.

11. **Microthyrium abnorme** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 65. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, subradiato-cellulosis, atro-olivaceis, medio ruguloso-papillatis, margine tenue membranaceis, ca. 1 mm. diam.; ascis oblonge clavatis, curvulis vel rectis, apice rotundato-tunicatis, basi breve stipitatis, 4-8-sporis, 150-180 × 15-30; sporidiis subdistichis oblonge clavatis, rectis vel curvulis, continuis, dein medio septatis, 30-40 × 10-14, hyalinis. 3000

Hab. in foliis coriaceis arboris cujusdam, Marary, Rio Juruá Amazoniæ.

12. **Microthyrium Carludovicæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 66. — Maculis mycelii fuscis effusis vel obsoletis; peritheciis epiphyllis, sparse gregariis, dimidiato-scutellatis, atris, ra- 3001

diato-cellulosis, medio papillatis, ca. 200-250 μ.; ascis clavatis, apice rotundatis, fasciculatis, 8-sporis, 35-45 × 3½-4; paraphysibus copiosis, filiformibus, hyalinis obvallatis; sporidiis oblonge fusoideis, subacicularibus, utrinque obtusis vel subacutiusculis, medio 1-septatis, vix constrictis, hyalinis, 8-10 × 2-2½.

Hab. in foliis Carludovicæ spec., Rio Juruá Amazoniæ.

PEMPHIDIUM Mont. — Syll. II p. 670, IX p. 1054.

1. **Pemphidium bomulense** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 3002 — Maculis pallidis explanatis; perithecii sparsis amphigenis, innato-superficialibus, subscutellatis, ostiolatis, pertusis, atris, subnitentibus, ca. 120-130 μ. diam.; ascis fasciculatis, aparaphysatis, oblonge fusoideis, utrinque attenuatis, octosporis 50-60 × 4-5,5; sporidiis subdistichis, oblonge fusoideis vel subclavatis, utrinque acutiusculis, 3-guttulatis, an deinde septatis? hyalinis, 15-25 × 2,5.

Hab. in foliis Berliniæ?, Bomule, Ost-Usambara, Africæ orient. (Zimmermann).

POLYSTOMELLA Speg. — Syll. IX p. 1063. XVI p. 639.

1. **Polystomella aphanes** Rehm, Hedw. XLIV, 1905. — Stromatibus 3003 dispersis, sessilibus, dimidiatis, lentiformibus, 0,2-0,4 mm. d., poris minutissimis creberrimis punctiformibus pertusis, nigris, versus marginem radiatim contextis; ascis piriformibus, sessilibus, ad apicem valde incrassatis, 40-45 × 12-15, 8-sporis; sporidiis clavatis, medio septatis et subconstrictis, strato mucoso obductis, hyalinis, 12-14 × 3, distichis; paraphysibus ramosis.

Hab. ad ramulum corticatum? Tubarao Brasiliæ (Ule). — Tantum sub microscopio ut *Polystomella* recognoscenda species.

Sect. 4. Phæodidymæ.

SEYNESIA Sacc. — Syll. II p. 668, IX p. 1064, XI p. 381, XIV p. 689, XVI p. 639.

1. **Seynesia juruana** P. Henn. Fungi Amaz. III, 1904, p. 376, cum 3004 icon. — Peritheciis in maculis subrotundatis, hypophyllis, sparsis vel gregariis, dimidiato-scutellatis, medio subpapillatis, atris, radiato-cellulosis, margine fimbriatis, hyphis fuscis, septatis, ramosis 4-6 μ. crassis, hyphopodiis subalternis, capitatis, interdum lo-

batis ca. 12-15 × 5-8; ascis oblonge clavatis, obtusis tunicatis, 8-sporis, paraphysatis, 100-120 × 22-26; sporidiis subdistichis, oblonge ovoideis, primo hyalinis, cellula superiori intus granulata, dein fuscis, basi hyalino-subpapillatis, 25-28 × 9-12.

Hab. in foliis Casearіæ sp. Juruá-Miry, Rio Juruá Amazoniæ.

2. **Seynesia marmellensis** P. Henn. Fungi Amaz. III, 1904, p. 375. — Peritheciis hypophyllis sparsis vel gregariis, dimidiato-scutellatis, atris, radiato-cellulosis, medio subpapillatis vel pertusis, ca. 250-300 μ. diam., margine hyphis radiantibus, subramosis, fuscis; ascis clavatis, tunicatis, 8-sporis 40-70 × 15-25, subparaphysatis; sporidiis subdistichis v. subconglobatis, ovoideis, medio 1-septatis, constrictis, atris, 14-22 × 7-10. 3005

Hab. in foliis Sweetiæ nitentis, Marmellos, Rio Madeira Amazoniæ.

3. **Seynesia Melastomataceæ** P. Henn. in Hedw. 1902, p. 300. — Maculis atris; peritheciis epiphyllis, aggregatis convexo-scutellatis, subcoriaceis, centro papillatis, dein irregulare apertis, stellato-rimosis, ca. 140-160 μ. diam., contextu radiato, fusco-atro, margine hyphis repentibus fuscis, septatis 3-4 μ. cr. circumdatis; ascis ovoideis rotundatis, crasse tunicatis, 40-50 × 20-28, octosporis, conglobatis ellipsoideo-ovoideis, 1-septatis, hyalino-fuscidulis, dein constrictis, 17-20 × 6-7. 3006

Hab. in foliis Melastomatis, Campos de Agua Branca, pr. S. Paulo Brasiliæ.

4. **Seynesia Humiriæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 65. — Maculis mycelii amphigenis, radiato-effusis, hyphis septatis subtorulosis, ramosis, atro-brunneis, 3-4 μ. crassis; conidiis fusoideis, castaneis, 4-5-septatis, paullo constrictis, 30-40 × 4-5; peritheciis dimidiato-scutellatis, medio papillatis, contextu radiato-cellulosis, longitudinaliter rimosis, 200-250 μ. diam.; ascis subglobosis, apice tunicatis, 8-sporis, 40-50 μ.; sporidiis conglobatis, ovoideis, medio 1-septatis, valde constrictis, aterrimis, granulato-verrucosis, 18-23 × 10-13. 3007

Hab. in foliis Humiriæ floribundæ, Pontenegro, Rio Negro Amazoniæ.

5. **Seynesia petiolicola** P. Henn. in Hedw. 1903, p. (78). — Peritheciis aggregatis, scutellatis, atris, radiato-cellulosis, pertusis, ca. 200-350 μ. diam.; ascis oblonge ovoideis, apice rotundatis, crasse tunicatis, octosporis, 30-35 × 10-13; sporidiis conglobatis, ellipsoi- 3008

deis vel ovoideis, utrinque rotundatis primo hyalinis, continuis, granulatis, dein medio 1-septatis, fuscis, 8-10 × 5-6.

Hab. in petiolis foliorum Dysoxyli spec., Eumundi, South Queensland Australiæ (Pritzel).

6. **Seynesia submegas** P. Henn. Fungi Amaz. III, 1904, p. 374, cum icon. — Maculis mycelii subrotundatis, fuscis, epiphyllis; perithe- 3009
ciis gregariis, dimidiato-scutellatis, medio subpapillatis, atris, radiato-cellulosis, ca. 200-250 μ. diam., hyphis fuscis, ramosis, septatis, radiatim circumdatis; hyphopodiis alternis, ovoideis, ca. 10 μ.; ascis ovoideis, crasse tunicatis, 4-8-sporis, 50-65 × 40-50; sporidiis conglobatis, oblonge ovoideis, obtusis, medio 1-septatis, valde constrictis, atris, 26-36 × 18-25.

Hab. in foliis Guareæ spec., Juruà-Miry, Rio Juruá Amazoniæ.

7. **Seynesia Hammariana** P. Henn. in Hedw. 1902, p. 301. — Maculis 3010
nullis; peritheciis epiphyllis, interdum hypophyllis sparsis v. gregariis, discoideo-scutellatis, rotundatis, magnis, 1-2 mm. diam., atris, centro rugulosis, contextu subcorneo, radiato, atro-fusco, cærulescente, margine crenulatis, haud hyphoideis, deinde stellatim lobato-rimosis; conidiophoris gregariis, inter perithecia, hyalinis, 10-14 × 4; conidiis acrogenis ovoideis vel subellipsoideis, continuis, atro-castaneis, medio pellucide porosis, 20-35 × 20-30; ascis ovoideis vel subgloboso-ellipsoideis, 4-8-sporis, 40-60 × 40-50; sporidiis ovoideis vel ellipsoideis, medio 1-septatis, paullo constrictis, hyalino-fuscidulis, 20-30 × 16-20, conglobatis.

Hab. in foliis Coccolobæ? S. Catharina Brasiliæ (A. Hammar).

8. **Seynesia fusco-paraphysata** P. Henn. in Engl. Bot. Jahrb. 1903, 3011
p. 48. — Peritheciis hypophyllis, sparsis, subcorneis, dimidiato-scutellatis, atris, margine fimbriatis, 1-1,5 mm. diam., centro ruguloso-papillatis, dein rimosis; ascis clavatis, apice rotundatis, octosporis, 80-90 × 28-32; paraphysibus basi ramosis, filiformibus, ca. 3 μ. cr., septatis, apice clavatis, fuscis, 4-4,5 μ. cr.; sporidiis subdistichis, oblongis v. clavatis, utrinque rotundatis, medio 1-septatis, valde constrictis, mox in cellulas secedentibus, atris, 20-30 × 10-13.

Hab. in foliis Tabernæmontanæ spec., West-Usambara Africæ orient.

9. **Seynesia Banksiæ** P. Henn. in Hedw. 1903 (p. 78). — Maculis 3012
fuscis rotundatis v. confluentibus; peritheciis epiphyllis gregariis, scutellatis, radiato-cellulosis, atris, longitudinaliter lobato-dehiscen-

tibus ca. 180-222 μ. diam.; ascis ovoideis vel clavatis, apice late rotundatis, octosporis, 50-80 × 15-22; sporidiis distichis v. conglobatis, ovoideis vel subellipsoideis, 1-septatis, constrictis, olivaceo-fuscis 13-18 × 7-9.

Hab. in foliis Banksiæ, Höhen prope Gosford N. S. Wales Australiæ (Pritzel). — Sec. cl. Mac Alp. in Proc. Linn. Soc. N. S. Wales 1903, p. 563, adsunt paraphyses stipatæ, filiformes, hyalinæ, valde ramosæ. — In foliis Banksiæ ornatæ, Dimboola Desert in Victoria Australiæ (Reader).

10. **Seynesia megas** Rehm — Syll. XVI, p. 640. — var. **macrospora** 3013
Starb. in Arkiv. för Botan. 1904, II, p. 13. — Ascis 114 × 25; sporidiis majoribus, loculo superiore rhomboideo, guttula una magna globulosa fœto, loculo inferiore angustiore, apice rotundato 32 × 20 (parte sup.) × 12 (p. inf.).

Hab. in foliis plantæ indet. Matto Grosso Brasiliæ (Lindman). — Hæc forma, verisimiliter, a typo est specifice distinguenda.

11. **Seynesia coccoidea** P. Henn. F. javanici novi, in Hedw. 1902, 3014
p. 141. — Peritheciis amphigenis, sparsis, dimidiato-scutellatis, margine subfimbriatis, vertice gibboso, atris 1-2,5 mm. diam., intus flavidis subcarnosulis, mycelio fusco-brunneo ex hyphis septatis, 3-3,5 μ. cr.; ascis ovoideis ca. 20 × 15 octosporis, utrinque obtusis; sporidiis ovoideis, obtusis 10-12 × 5-6, flavidis.

Hab. in foliis Bambusæ spec. in insula Java.

Sect. 5. Hyalophragmiæ.

MICROPELTIS Mont. — Syll. II p. 669, IX p. 1069, XI p. 381, XIV p. 690, XVI p. 642.

1. **Micropeltis Rollinæ** P. Henn. in Hedw. 1904, p. 84. — Perithe- 3015
ciis aggregatis, superficialibus, crustaceo-maculiformibus in poris ca. 1 mm. diam. confluentibusque atris, primo subpulvinatis, ca. 100 μ. diam., poro pertusis, dein subcupulatis, contextu subradiante celluloso, atro-cinnamomeo; ascis clavato-fusoideis, apice tunicatis, attenuatis, 20-30 × 5-7 octosporis; paraphysibus copiosis obvallatis, filiformibus, hyalinis, ca. 1-1,5 μ. cr.; sporidiis parallelis aciculari fusoideis, utrinque acutis, rectis vel flexuosis, hyalinis, pluriguttulatis vel obsolete pluriseptatis, 15-20 × 2-2,5.

Hab. in foliis Rolliniæ emarginatæ, Laguna pr. St Catharina Brasiliæ (E. Ule).

2. **Micropeltis Xylopiæ** P. Henn. Fungi Amaz. IV, in Hedw. 1905, 3016
p. 66. — Peritheciis epiphyllis, sparsis, dimidiato-scutellatis, atris, radiato-cellulosis, medio subpapillatis, atro-fuscis 240-300 μ. diam.; ascis clavatis, apice crasse tunicatis, octosporis, 40-50 × 8-12; sporidiis sub-di- vel sub-tristichis, cylindraceis, utrinque obtusis, 3-5-septatis, constrictis, 14-20 × 3,5-4,5, hyalinis.

Hab. in foliis Xylopiæ, Rio Juruá Amazoniæ.

3. **Micropeltis erysiphoides** Rhem, Hedw. XLIV, 1904, pag. 1. — 3017
Peritheciis hypophyllis, subgregariis, dimidiatis, poro centrali pertusis, atris, glabris, parenchymatice versus marginem hyphis radiantibus contextis, 200 μ. diam; ascis clavatis, 50-55 × 8-9, 8-sporis; sporidiis clavatis, 3-septatis, hyalinis, 15 × 2-2,5, distichis; paraphysibus tenerrimis, ramosis.

Hab. ad folia Malpighiaceæ, Cabo Frio Brasiliæ (Ule). — Habitus *Erysiphes* et ægre detegenda.

4. **Micropeltis Scheffleri** P. Henn. Fungi Afr. Orient. II, in Bot. 3018
Jahrb. XXVIII, p. 38. — Peritheciis hypophyllis, raro epiphyllis, dimidiato-scutatis, applanatis, atris, margine subintegris, centro radiato-dehiscentibus 300-400 μ. diam, contextu membranaceo-parenchymatico; ascis clavatis, apice obtuso-rotundatis, crasse tunicatis, ca. 80-110 × 22-30, octosporis, aparaphysatis; sporidiis conglobatis, oblonge fusoideis vel clavatis, 10-11-septatis, 60-90 × 7-9; cellulis cuboideis, constrictis, ca. 8 μ. diam. subsecedentibus.

Hab. in foliis Flacourtiaceæ cujusdam, Usambara (Scheffler).

5. **Micropeltis manaosensis** P. Henn. Fungi Amaz. III, 1904, p. 377, 3019
cum icon. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, rotundatis, atris, 130-160 μ. diam., radiato-cellulosis, fusco-brunneis, margine fimbriatis, subpallidis, medio subpapillatis; ascis clavatis, apice rotundatis, 8-sporis, 30-40 × 11-15; sporidiis subdistichis v. conglobatis, oblongis v. clavatis, rectis v. curvulis, utrinque rotundatis, primo 1-dein 2-3-septatis, subconstrictis, guttulatis, 10-13 × 3-3 $^1/_2$.

Hab. in foliis Myrtaceæ cujusdam, Manaos, Rio Negro Amer. merid.

6. **Micropeltis Garciniæ** P. Henn. in Engl. Bot. Jahrb. 1903, p. 48. 3020
— Peritheciis epiphyllis, sparsis, dimidiato-scutellatis, atris, margine hyalino, radiato-fimbriatis, rugulosis, ca. 250-300 μ. diam., contextu radiato-celluloso; ascis clavatis, apice rotundato-tunicatis,

octosporis, 40-50 × 10-12, aparaphysatis; sporidiis clavatis, obtusis 3-4-septatis, constrictis, 15-20 × 3,5-4 hyalinis.

Hab. in foliis Garciniæ spec., Ost-Usambara Africæ orient.

7. **Micropeltis distincta** P. Henn. in Engl. Bot. Jahrb. 1901, p. 257. 3021
— Sacc. Syll. XVI, pag. 1141 (nomen). — Peritheciis epiphyllis v. hypophyllis, sparsis, orbiculari-scutatis, depressis, tenui-marginatis, olivaceo-fuscis, radiato-reticulatis, 180-250 μ. diam.; ascis clavatis, vertice rotundatis, tunicatis, basi attenuatis, 4-8-sporis, 35-65 × 20-28; sporidiis conglobatis, oblonge clavatis 3-9-septatis, 25-50 × 4-5, hyalinis; paraphysibus fasciculatis, filiformibus, dichotomis 30-60 × 1-1,5.

Hab. in foliis Tricalysiæ Nyassæ ex Rubiaceis, Kondeland sup. Africæ orient.

8. **Micropeltis coffeicola** P. Henn. in Hedw. 1902, p. (63). — Perithe- 3022
ciis epiphyllis, sparsis, dimidiato-scutellatis, atris, margine tenui subhyalino, 200-250 μ. diam., contextu pseudoparenchymatico brunneo; ascis clavatis, apice obtuse rotundatis, basi attenuato-curvulis 2-8-sporis, 26-36 × 12-18; sporidiis conglobatis fusoideis v. clavatis, utrinque obtusiusculis, rectis v. curvulis, 3-6-septatis, haud constrictis, hyalino-cyanescentibus, 18-30 × 3,5-5.

Hab. in foliis vivis Coffeæ arabicæ, Chocola, Guatemala (Preuss).

9. **Micropeltis Schmidtiana** Rostr. in Bot. Tidsskrift-Copenhagen 1902, 3023
vol. 24, p. 211. — Peritheciis dimidiato-scutatis, orbicularibus, convexulis, tabacinis, epiphyllis, ambitu plano membranaceis; ascis fasciculatis, fusiformibus, 50-52 × 10-12; paraphysibus filiformibus, obvallatis, octosporis; sporidiis anguste fusoideis, hyalinis, 5-7-septatis, 20-25 × 5.

Hab. in foliis Apostasiæ Lobbii, Siam Asiæ merid.

10. **Micropeltis aureo-brunnea** P. Henn. Fungi Amaz. III, 1904, p. 378, 3024
cum icon. — Peritheciis hypophyllis, sparsis vel gregariis, dimidiato-scutellatis, rotundatis, primo flavo-brunneis, dein castaneis, ca. 280-320 μ. d., contextu radiato-celluloso, aureo-brunneo, dein rufo-brunneo vel subolivaceo, margine pallidiori pellucido; ascis fusoideis, subapiculatis, 8-sporis, 33-40 × 8-11; paraphysibus filifiliformibus, hyalinis, ca. 0,8 μ. crassis; sporidiis oblique monostichis vel subdistichis, fusoideis, rectis vel curvulis 3- interdum 2-septatis, hyalino-cyanescentibus, 13-18 × 2½-3½.

Hab. in foliis Trichomanis sp. Juruá-Miry Rio Juruá Amazoniæ.

ACTINIOPSIS Starb. — Syll. XVI p. 543. — *Asteropeltis* P. Henn. Hedw. XLIII pag. 380. — Genus, observante cl. Hennings, ad *Microthyriaceas* nec *Sphæriaceas* adscribendum et ita definiendum: Perithecia membranacea dimidiato-scutata, suborbiculata medio pertusa, margine appendiculis rigidis rectis ex hyphis conflatis vestita. Asci fusoidei vel clavati 8-spori, paraphysati; sporidia cylindracea, pluriseptata, hyalina. *Micropelti* et *Scolecopelti* affinis.

1. **Actiniopsis Ulei** P. Henn. Hedw. XLIV, p. 66, *Asteropeltis Ulei* P. Henn. Hedw. XLIII, p. 381 = *Asteropeltis mirabilis* Rehm, Hedw. XLIV, p. 3. — Peritheciis epiphyllis sparsis, subdimidiato-scutatis, subrotundatis, atris, membranaceo-cellulosis, poro pertusis, ca. 180-200 μ. diam., margine tenuissimo, subhyalino, appendiculis rigidis in sicco erectis, in vivo stellato-explanatis, atris, 100-250 × 60, ex hyphis septatis, fuscis sursum acutis pallidioribus laxe conflatis; ascis oblonge fusoideis, apice crasse tunicatis rotundatis, curvulis vel rectis, 8-sporis, 70-100 × 11-17, subsessilibus; paraphysibus filiformibus, flexuosis, basi ramosis, 1-1 ½, hyalinis; sporidiis oblique monostichis vel subdistichis, oblonge cylindraceis, obtusis, flexuosis vel rectis, 7-septatis, subconstrictis, hyalinis, 45-50 × 3 ¼. 3025

Hab. in foliis Calatheæ, Blumenau et Orthocladæ variforæ, Juruá Miry, Rio Juruá Brasiliæ. — Sec. cl. Rhem sporidia 9-11-septata, tristicha, 40-45 × 4-4,5, basim versus acutata.

2. **Actiniopsis juruensis** P. Henn. Fungi Amaz. IV, in Hedw. 1904, XLIV, pag. 66. — Peritheciis sparsis, epiphyllis, subturbinato-scutellatis, fuscidulis, medio pertusis, cellulosis, 300-500 μ. diam., ad marginem appendiculis plurimis, rigidis, squarrosis, apice fimbriatis, pallidis, 100-150 μ. longis, ex hyphis laxe conflatis; ascis oblonge clavatis, apice rotundatis, tunicatis, paraphysatis, octosporis 90-100 × 13-15; sporidiis subtristichis, longe fusoideis vel filiformibus, apice subacutiusculis, 8-12-septatis, constrictiusculis 40-60 × 3-4. 3026

Hab. in foliis Marantaceæ cujusdam, Rio Juruá Amazoniæ.

TRICHOPELTIS Speg. — Syll. IX p. 1068.

1. **Trichopeltis ferruginea** Rehm, Hedw. XLIV, p. 1. Ita vocanda *Calonectria ferruginea* Rehm — Syll. XVI, p. 595. — var. **Psychotriæ** Rehm, Hedw. XLIV, p. 1. — Maculis mycelii 1 mm. diam.; peritheciis solitariis; ascis fusoideis 45-50 × 12-15; sporidiis fusiformibus, utrinque obtusis, 3-septatis, 18-20 × 5, tristichis. 3027

Hab. in foliis Psychotriæ et Calatheæ pr. Blumenau Brasiliæ (Ule).

2. **Trichopeltis obtecta** Rehm, Hedw. XLIV. Ita vocanda *Calonectria obtecta* Rehm — Syll. XVI, p. 595.

ULEOPELTIS P. Henn. Fungi Amaz. II, p. 267 (1904) (Etym. a cl. E. Ule, generis detectore et strenuo Brasiliæ innumerorum mycetum collectore). — Stromata superficialia, dimidiato-scutellata, subcarbonacea, atra. Perithecia in stromate immersa, rimis subconcentricis dehiscentia. Asci clavati, 8-spori, paraphysati; sporidia oblonge fusoidea vel linearia, hyalina, pluriseptata. — Genus, quoad locum systematicum, adhuc dubium.

1. **Uleopeltis manaosensis** P. Henn. l. c. cum icon. — Stromatibus 3028
epiphyllis, sparsis superficialibus, e suborbiculari dimidiato-scutellatis, vertice interdum obtuse papillatis, rugulosis, atro-subcarbonaceis, rima subconcentrice vel irregulariter dehiscentibus, 1-2 mm. diam., hyphis radiantibus, ramosis, fuscis, 3-4 μ. crassis circumdatis; ascis oblonge clavatis, vertice tunicatis, rotundatis, 8-sporis, basi substipitatis, 85-120 × 10-12; paraphysibus filiformibus, hyalinis, ca. $1^1/_2$ μ. crassis; sporidiis subdistichis, oblonge fusoideis vel linearibus, subobtusis, rectis vel flexuosis, 3-6-septatis, hyalinis, 30-55 × $3^1/_2$-$4^1/_2$.

Hab. in foliis Palmæ cujusdam (Chamædoreæ?) Manaos, Rio Negro Amazoniæ.

Sect. 6. Phæophragmiæ.

PHÆOSCUTELLA P. Henn. Fungi Amaz. III 1904, p. 382 (Etym. *phaios* fuscus et *scutella*, ob sporidia phæphragmia). — Perithecia subdimidiato-scutellata, tenue membranacea, subfibrosa, fuscidula pellucida, sine structura cellulosa. Asci ellipsoidei vel ovoidei, 8-spori, aparaphysati; sporidia parallele conglobata, cylindracea, pluriseptata, fusca.

1. **Phæoscutella Gynerii** P. Henn. l. c. cum icon. — Peritheciis am- 3029
phigenis sparsis v. aggregatis, subdimidiato-scutellatis, atro-fuscis, tenue membranaceis, subfibrosis, structura vix cellulosa, fusco-brunneola, hyphis mycelii fuscis permixtis, 0,5-1 mm. diam.; conidiis fusoideis, fuscis, pluriseptatis, 20-30 × 5-7; ascis oblonge ellipsoideis, interdum subovoideis, rotundatis, 30-50 × 15-25, 8-spo-

ris, aparaphysatis; sporidiis parallele conglobatis, cylindraceis, obtusis, rectis vel curvulis, 5-8-septatis, constrictis, castaneo-fuscis, dein atris, ca. 22-45 × 5-6.

Hab. in foliis Gynerii saccharoidis, Rio Juruá, Juruá-Miry Amazoniæ.

Sect. 7. Phædictyæ.

PHÆOSACCARDINULA P. Henn. Fungi Amaz. IV in Hedw. 1905, pag. 66 (Etm. *phaios* fuscus, quasi *Saccardinula* phæodictya). — Perithecia superficialia (phyllogena) scutellato-dimidiata, contextu subradiato-celluloso, fusco. Asci subovoidei, 8-spori, paraphysati. Sporidia oblonge cylindracea, pluriseptata, muralia, fusca. – A *Saccardinula* Speg. ascis paraphysatis, sporidiis fuscis etc. diversa. In Tabulis comparativis (Syll. XIV pag. 25) occupabit n. 19, inter Microthyriaceas.

1. **Phæosaccardinula diospyricola** P. Henn. l. c. p. 67, cum icone. — 3030
Peritheciis epiphyllis, superficialibus, sparsis, dimidiato-scutellatis, hyphis fuscidulis simplicibus circumdatis, medio subpapillatis, pertusis, subradiato-cellulosis, fuscis, ca. 280-300 μ. diam.; ascis ovoideis vel late clavatis, rotundatis, octosporis, 55-75 × 35-40; paraphysibus copiosis, filiformibus, hyalinis; sporidiis conglobatis, longe cylindraceis, utrinque obtuse rotundatis, 7-13-septatis, interrupte muralibus, 35-60 × 7-10, fuscis.

Hab. in foliis Diospyri, Tarapoto, Rio Amazonas.

Sect. 8. Scolecosporæ.

OPHIOPELTIS d'Almedia et da Camara in Revista Agronomica 1903, vol. I n. 5, pag. 175 (Etym. *ophis* anguis et *pelte* scutum). — Perithecia submembranacea, dimidiato-scutata, superficialia, centro perforata. Asci subcylindracei, aparaphysati, oligospori (trispori); sporidia vermicularia, ascos subæquantia, multiguttata, hyalina. — Ab affini *Scolecopelte* differt sporidiis non articulatis.

1. **Ophiopeltis Oleæ** d'Alm. et da Cam. l. c., tab. X, fig. 8-10. — 3031
Peritheciis peltatis, atris, ostiolo distincto impressoque, 200-300 × 80-100; ascis subcylindraceis, in stipitem brevem attenuatis, apice rotundatis 38-50 × 12-15 trisporis (jugiter?); sporidiis vermiformibus, obtusiusculis, plerumque curvulis, hyalinis, pluriguttatis, 35-58 × 2,5-3.

Hab. ad ramulos siccos Oleæ europææ, Lisboa Lusitaniæ (Benfica).

SCOLECOPELTIS Spog. — Syll. IX p. 1072, XIV p. 646.

1. **Scolecopeltis æruginea** A. Zimm. Centr. f. Bakter. 1902, II Abt. VIII, p. 183. — Peritheciis superficialibus, lenticularibus, glabris, nigris, sub microscopio ærugineis albo-marginatis, 0,4-0,5 mm. diam., margine ex hyphis mycelialibus laxis 2 μ. cr. formato, 0,2 mm. lato; ostiolo 20 μ. diam.; ascis e perithecii fundo orientibus, 4-sporis v. sæpius 2-3-sporis, clavatis, 80 × 25; sporidiis cylindraceis mox (etiam intra ascos) in articulos 15-20 × 12 secedentibus. 3032

   Hab. in foliis Coffeæ libericæ hinc inde frequens, sed non noxia, Buitenzorg Javæ.

2. **Scolecopeltis Bauhiniæ** P. Henn. Fungi Amaz. III, 1904, p. 379. cum icon. — Peritheciis epiphyllis sparsis, rotundato-scutellatis, atris, 180-200 μ. diam., celluloso-radiatis, margine fimbriato- membranaceis subpallidis; ascis clavatis interdum subfusoideis, apice rotundatis 8-sporis, 70-90 × 20-30; sporidiis parallelis, cylindraceis, obtusis, pluriseptatis, dein moniliformibus, cellulis globosis 6-8 μ. diam., hyalinis, in asco secedentibus. 3033

   Hab. in foliis Bauhiniæ spec., Iquitos, Rio Amazonas, Perù.

3. **Scolecopeltis Gaduæ** P. Henn. Fungi Amaz. III, 1904, p. 378. — Peritheciis sparsis epiphyllis, dimidiato-scutellatis, rotundatis, atris, opacis, centro subconico-papillatis subnitentibus, margine tenui subradiato, ca. 300 μ. diam.; ascis late clavatis vel subfusoideis, apice rotundato-tunicatis, 8-sporis, sparse paraphysatis, 70-90 × 20-40; sporidiis parallelis, subcylindraceo-clavatis, 14-20-septatis, rectis vel curvatis, valde constrictis, cellula superiore subellipsoidea, cellulis mediis subglobosis 60-70 × 5-7, hyalinis, deinde dilabentibus. 3034

   Hab. in foliis Gaduæ sp. Juruá-Miry Rio Juruá Amazoniæ.

4. **Scolecopeltis Guettardæ** P. Henn. Fungi Amaz. III, 1904, p. 380, cum icon. — Peritheciis epiphyllis sparsis, dimidiato-scutellatis, medio papillatis, atris, ca. 400-500 μ. diam., contextu radiato-celluloso, atro-cæruleo, margine fimbriato; ascis oblonge clavatis, apice rotundato-tunicatis, 8-sporis, paraphysatis, 110-140 × 25-30; sporidiis parallelis, cylindraceis, utrinque rotundatis pluri- ca. 20-26-septatis, ca. 90-112 × 6-7, cellulis subgloboso-cuboideis, deinde secedentibus. 3035

Hab. in foliis Guettardæ megalophyllæ, Juruá-Miry, Rio Juruá Amazoniæ.

5. **Scolecopeltis quindecimseptata** P. Henn. Fungi Amaz. III, 1904, p. 379, cum icon. — Peritheciis epiphyllis gregarie sparsis, rotundato-scutellatis, 500-800 μ. diam., membranaceis, radiato-cellulosis, atro-cæruleis, margine fimbriatis; ascis clavato-fusoideis, apice rotundato-tunicatis, basi attenuato-stipitatis, 8-sporis, 130-150 × 30-40; sporidiis parallelis, cylindraceis, utrinque obtuse rotundatis, rectis vel flexuosis, 15-septatis, ca. 100-120 × 6-7; cellulis cuboideis, haud secedentibus?, hyalino-cyanescentibus. 3036

Hab. in foliis Araceæ cujusdam, Juruá-Miry, Rio Juruá Amazoniæ.

Subfam. 2. **Asterineæ** Sacc. et Syd.

Sect. 1. Phæodidymæ.

ASTERINA Lév. — Syll. I p. 39, IX p. 379, XI p. 255, XIV p. 693, XVI p. 646 *).

1. **Asterina Belluciæ** P. Henn. Fungi. Amaz. III, 1904, p. 374, cum icon. — Maculis mycelii epiphyllis sparsis, rotundatis, atris, hyphis repentibus, torulosis, ramosis, atris, 4-7 μ. crassis, hyphopodiis alternis ovoideis, ca. 10 μ.; peritheciis gregariis, minutis, sublenticularibus, brunneo-fuscis, 70-100 μ. diam; ascis paucis, ovoideis tunicatis, 8-sporis, 40-50 × 35-40; sporidiis conglobatis, oblonge ellipsoideis, medio 1-septatis, constrictis, atris 20-23 × 8-10. 3037

Hab. in foliis Belluciæ sp. Juruá Miry, Rio Juruá Amazoniæ.

2. **Asterina byrsonimicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 65. — Maculis mycelii hypophyllis vel epiphyllis effusis, atris; hyphis repentibus, radiatis ramosis, fusco-atris, usque ad 8-10 μ. crassis, pseudopodiis alternis ovoideis, 20 × 10; peritheciis gregariis dimidiato-scutellatis, radiato-cellulosis, fusco-brunneis, medio perforatis, 250-300 μ. diam.; ascis ovoideis v. ellipsoideis, rotundatis, 3038

*) Lapsu typographico in *Tab. comp. gen. fung.* (Syll. XIV, p. 24) locatur *Asterina* inter Hyalodidymas et *Asterella* inter Phæodidymas, sed, ut notum est, prorsus contrario res se habet.

8-sporis, 50-60 × 30-40; sporidiis conglobatis ellipsoideis, medio 1-septatis, valde constrictis, hyalinis dein atris, 20-30 × 10-15.

Hab. in foliis Byrsonimæ spec., Rio Negro, Manáos Amazoniæ.

3. **Asterina celtidicola** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 64. — Maculis mycelii atris, effusis; hyphis repentibus, atris, septatis, ramosis, ca. 3-4 μ. cr., pseudopodiis alternis ovoideis, atro-fuscis, 8-10 × 4-5; peritheciis dimidiato-scutellatis, radiato-cellulosis, fuscis, medio perforatis, lobato-rimosis 90-120 μ. diam.; ascis ovoideis v. subglobosis, tunicatis, octosporis, 20-28 × 18-25; sporidiis conglobatis, ellipsoideis vel subovoideis, primo hyalinis, levibus, dein atris, granulato-verrucosis 15-20 × 8-9. 3039

Hab. in foliis Celtidis spec., Bom Fim, Rio Juruá, Amazoniæ.

4. **Asterina opulenta** (P. Henn.) Sacc. *Asterella opulenta* P. Henn. in Hedw. 1904, p. 83. — Mycelio effuso crustaceo, aterrimo, maculiformi; hyphis ramosis, septatis, atris, 3-4 μ. crassis; conidiis subglobosis vel ovoideis, continuis, atro-fuscis 8-12 μ.; peritheciis discoideis rotundatis, atris, asteroideo-dehiscentibus, lobis subtriangularibus 120-150 μ. diam.; ascis paucis, ovoideis, tunicatis 4-8-sporis, 60-80 × 40-60; sporidiis conglobatis oblongis, utrinque rotundatis, medio 1-septatis, mucosis, haud constrictis, 32-40 × 14-17, primo hyalinis dein atro-castaneis. 3040

Hab. in foliis Ilicis spec. Tijuca, Rio de Janeiro Brasiliæ (E. Ule).

5. **Asterina Hyphaster** P. Henn. in Hedw. 1902, p. 299. — Maculis fuscidulis indeterminatis; hyphis repentibus atris, ramosis, anastomosantibus, septatis 3-4,5 μ. crassis; conidiis ovoideis v. ellipsoideis, atro-fuscis, medio 1-septatis; peritheciis lenticularibus v. discoideis, contextu radiato-fibroso, atro-fusco, centro pellucido, subtrilobato dehiscentibus, ad marginem radiato-stellatis, 150-180 μ. diam. primo conidia ovoidea, atrofusca 1-septata, constricta 10-15 × 6-7, conidiophoris brevibus hyalinis suffulta gerentibus; ascis ovoideis, tunicatis 20-25 × 20-30, octosporis conglobatis, ellipsoideis v. ovoideis, medio 1-septatis, constrictis, primo hyalinis dein atro-castaneis 12-16 × 6-8, cellulis subglobosis, deinde secedentibus. 3041

Hab. in foliis Malvastri spec., in horto botanico S. Paulo Brasiliæ. — *Hyphaster* P. Henn. est st. initialis conidicus.

6. **Asterina Violæ** P. Henn. in Hedw. 1902, p. (63). — Mycelio atro, radiato-effuso hypophyllo, in maculis minutis gregariis; hyphis septatis, ramosis, fuscis 2,5-3,5; peritheciis sparsis, lenticularibus, 3042

radiato-cellulosis, poro pertusis, atris 40-50 μ. diam.; ascis ovoideis, utrinque rotundatis, 4-8-sporis, 12-15 × 9-13; sporidiis conglobatis, ellipsoideis, fusco-brunneis, 1-septatis, paullo constrictis, 8-10 × 4-4,5.

Hab. in foliis vivis Violæ silvestris var. grypoceratis, Mt. Yokogura Japoniæ (Yoshinaga).

7. **Asterina Dictyolomatis** P. Henn. Fungi Amaz. III, 1904, p. 372. — 3043
— Maculis mycelii epiphyllis, gregariis, rotundato-angulatis, atris, ca. 1-2 mm. diam.; hyphis repentibus, ramosis, anastomosantibus, atrofuscis, ca. 3-4 μ. crassis, hyphopodiis sparsis vel alternis, capitato-ovoideis; peritheciis gregariis, lenticularibus, radiato-cellulosis, medio pertusis, ca. 100-150 μ. diam.; ascis ovoideis vel late ellipsoideis, ca. 30-40 × 30, 8-sporis, apice crasse tunicatis; sporidiis conglobatis ellipsoideis vel subovoideis, hyalinis dein atris, medio 1-septatis, constrictis, 15-20 × 8-10.

Hab. in foliis Dictyolomatis spec., Jurimaguas, Huallaga Peruviæ.

8. **Asterina anonicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, 3044
p. 107. — Mycelio crustaceo atro, maculas parvas, superficiales, ex hyphis septatis, atro fuscis 3-5 μ. cr. formante; conidiis ovoideis atro-fuscis 1-septatis, 20-24 × 10-15; peritheciis sparsis, discoideis, poro pertusis, radiato-cellulosis, margine fimbriatis, 180-200 μ. d.; ascis ovoideis, octosporis 35-45 × 30-35; sporidiis conglobatis ovoideis, medio septatis, vix constrictis, hyalino-fuscidulis 15-20 × 10-13.

Hab. in foliis Anonæ spec., in horto botanico S. Paulo Brasiliæ.

9. **Asterina Passifloræ** (P. Henn.) Sacc. *Asterella Passifloræ* P. Henn. 3045
in Hedw. 1904, p. 84. — Mycelio atro, effuso, interdum obsolete, maculis minutis, rotundatis: hyphis castaneis, septatis, ramosis, ca. 3-4 μ. crassis; peritheciis lenticularibus, membranaceo-atris, aggregatis, radiato-cellulosis, poro pertusis 120-180 μ.; ascis ovoideis, vertice tunicatis, octosporis, 30-40 × 20-25; sporidiis ovoideis vel ellipsoideis, medio 1-septatis haud constrictis, atris, 16-22 × 8-12.

Hab. in foliis Passifloræ spec. Sao Francisco, pr. St. Catharina Brasiliæ (E. Ule).

10. **Asterina Negeriana** Syd. Ann. Mycol. 1904, p. 167. — Amphigena, 3046
maculas orbiculares sæpe confluendo effusas efficiens; mycelio ex hyphis ramosis brunneis septatis ca. 3½ μ. crassis composito; peritheciis gregariis, minutis, punctiformibus, globulosis, radiatim contextis, atris, 100-175 μ. diam.; ascis ovato-globosis vel ovatis,

apice incrassatis, sessilibus, 25-35 × 18-28, octosporis; sporidiis bitristichis vel conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, leniter constrictis, loculo superiore paullo latiore, ex hyalino brunneis, 14-18 × 7-8½.

Hab. in foliis Escalloniæ pulverulentæ, Concepcion in Chile et Escalloniæ spec. eodem loco.

11. **Asterina paraphysata** Starb. in Arkiv. för Botan. 1904, Band. 2, 3047
p. 12. — Mycelio latiuscule repente, peripherice laxissimo, reticulato, centrum versus dense crustaceo, nigerrimo, maculas vage determinatas inæqualiter polygonas formante; hyphis 5-12 μ. crasso; hyphopodiis oppositis, versiformibus, cellula basilari plerumque breve tuberculato-ramulosa, superne obtusa, continua vel 2-septata; peritheciis subsparsis, plicato-rugosis vel setis brevibus obsessis, primo scutellatis, dein lenticularibus, pulveraceo-carbonaceis, 100-150 μ. diam.; ascis subpiriformibus, subsessilibus, 65-75 × 35-40, octosporis; sporidiis conglobatis rhomboideis, 1-septatis, ex hyalino fuligineis, 29-32 × 14-16,5, membrana minutissime granulosa; paraphysibus numerosis dense septatis, ramosis, olivascentibus, filiformibus, ramulis extremis varie curvatis.

Hab. in foliis Styracis, Piratiny, Rio Grande do Sul Brasiliæ. — Asci jodo cærulescentes. Paraphysium charactere species præ-distincta.

12. **Asternia Turneræ** P. Henn. Fungi Amaz. III, 1904, p. 372, c. ic. — 3048
Maculis mycelii amphigenis, epiphyllis gregariis, rotundato-angulatis, atris, ca. 1-2 mm. diam.; hyphis repentibus, atro-fuscis, ramosis, anastomosantibus, 3-5 μ. crassis; pseudopodiis alternantibus, 2-4 lobatis, ca. 8 × 6, lobis subovoideis, obtusis, atro-fuscis; peritheciis subgregariis, subhemisphæricis, pertusis, radiato-cellulosis, margine radiantibus, rufo-fuscis, 60-90 μ.; ascis ovoideis vel late ellipsoideis, 8-sporis, crasse tunicatis, 30-40 × 25-35; sporidiis conglobatis, oblonge ellipsoideis, interdum subovoideis, utrinque rotundatis, medio 1-septatis valde constrictis, atro-fuscis, episporio minute granuloso, 14-20 × 7-10.

Hab. in foliis Turneræ ulmifoliæ, Tarapoto, Perù.

13. **Asterina Aucubæ** P. Henn. F. japonici IV, in Bot. Jahrbücher 3049
vol. XXXI, 1902, p. 739. — Maculis rotundatis, atris, mycelio crustaceo; hyphis repentibus, atris 4-6 μ. crass., pseudopodiis ovoideis, 1-septatis, 6-8 × 5-6; peritheciis gregariis subdiscoideis, pertusis 160-200 μ. diam., membranaceis, atris; ascis ellipsoideis, utrinque obtusis, 40-50 × 30-40 octosporis, aparaphysatis; sporidiis ob-

longe ellipsoideis, utrinque obtusis, medio 1-septatis, 25-35 × 10-12, constrictis.

Hab. in foliis Aucubæ japonicæ, Tosa Japoniæ.

14. **Asterina huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 372, cum icon. — Maculis mycelii epiphyllis, gregariis rotundato-confluentibus, atris; hyphis repentibus, ramosis, atris; peritheciis sparsis raro subgregariis, hemisphærico-lenticularibus, atris, radiato-cellulosis, medio pertusis, 90-120 μ. diam.; ascis subglobosis vel ovoideis, 8-sporis, tunicatis, 25-30 × 22-26; sporidiis oblonge ellipsoideis, medio 1-septatis, valde constrictis, hyalinis dein atris, minute verrucosis, 15-18 × 7-9. 3050

Hab. in foliis Crotonis, Huallaga, Tarapoto Perù..

15. **Asterina dilabens** Syd. Ann. Mycol. 1904, p. 168. — Amphigena; peritheciis gregariis, punctiformibus, 90-200 μ. diam., globulosis, atris, radiatim contextis, e medio marginem versus radiatim dehiscentibus; hyphis mycelii ramulosis, brunneis, ca. 3 ½ μ. crassis; ascis ovato-globosis, sessilibus, 22-26 × 18-24, octosporis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis constrictisque, loculis æqualibus, facile dilabentibus, ex hyalino brunneis, 12-15 ½ × 7 ½-9. 3051

Hab. in foliis Sarmientæ repentis, Concepcion in Chile. — Affinis *A. Negerianæ*, a qua differt sporidiis profundius constrictis et in binos articulos æquales facile secedentibus.

16. **Asterina Memoræ** P. Henn. Fungi Amaz. III, 1904, p. 373, cum icon. — Maculis mycelii epiphyllis, rotundatis vel effusis, atro-subcrustaceis vel subobsoletis; hyphis repentibus, ramosis, rufo-brunneis, ca. 3-5 μ. crassis, anastomosantibus; conidiis fusoideis, hyalino-stipitatis, fuscidulis, 3-septatis apice subhyalinis, 15-20 × 4-5; peritheciis gregariis v. sparsis, lenticularibus, pertusis, atris, radiato-cellulosis, ca. 150 μ. diam.; ascis clavatis, tunicatis, breve curvato-stipitatis, 8-sporis, 30-35 × 13-17; sporidiis subdistichis v. conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, valde constrictis, atris, 10-13 × 4 ½-5 ½. 3052

Hab. in foliis Memoræ spec. Huallaga, Tarapoto Perù.

17. **Asterina solanicola** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, pag. 108. — Mycelio crustaceo, atro, maculas minutas formante; hyphis superficialibus epiphyllis, atro-fuscis plerumque obsoletis; peritheciis sparsis, subhemisphæricis, poro pertusis 100-140 μ. diam., contextu parenchymatico, atro; ascis clavatis apice obtuso-rotundatis, basi curvulis, attenuatis, 35-40 × 8-10, octosporis; 3053

sporidiis subdistichis, ellipsoideis, medio septatis, haud constrictis, hyalinis dein brunneis, 5-7 × 3,5-4.

Hab. in foliis Solani leucodendri prope S. Paulo Brasiliæ.

18. **Asterina systema-solare** Massee in Kew Bull. 1901, p. 160. — 3054
Peritheciis gregariis, mycelio maculiformi atro insidentibus, sphæroideo-depressis, glabris, 90-100 μ. latis; ascis cylindraceo-clavatis, breviter pedicellatis, octosporis, 50-55 × 12; sporidiis distichis, obovatis, 1-septatis, fuscidulis, loculo superiore majore, obtusatis 9-10 × 5.

Hab. in pag. sup. fol. Banksiæ marginatæ in Tasmania (Rodway).

19. **Asterina Yoshinagai** P. Henn. in Hedw. 1902, p. (63). — Mycelio 3055
atro, radioso, in maculis rotundatis; hyphis effusis, septatis, ramosis vel simplicibus 3,5-5 μ. crassis; conidiis fusoideis, brunneis, apice interdum papillatis, basi stipitatis, 2-3-septatis, haud constrictis 18-20 × 4-4,5, stipite fuscidulo usque ad 10 μ. longo; peritheciis sparsis, lenticularibus, radiato-cellulosis, atro-brunneis, poro pertusis 50-80 μ. diam.; ascis oblonge ovoideis, apice rotundatis, basi curvulis attenuatis, octosporis, 30-40 × 15-18; sporidiis subdistichis v. conglobatis, oblonge ovoideis v. subclavatis, primo 4-guttulatis, dein medio 1-septatis, hyalino-fuscidulis, 13-20 × 4-5.

Hab. in foliis Quercus acutæ in prov. Tosa Japoniæ (Yoshinaga).

20. **Asterina circularis** Pat. Bull. Soc. Mycol. 1902, p. 301. — My- 3056
celio plagas atras, epiphyllas, 1-2 mm. latas, orbiculares, crustaceas, centro mox nudatas efficiente, ex hyphis brunneis, radiantibus, prostratis, 4-5 μ. cr., septatis, ramulosis, dense stipatis, hyphopodiis sessilibus, 1-cellularibus, brunneis, globoso-sinuatis, 6-7 μ. alt. ornatis, setulis destitutis, composito; peritheciis numerosis circulatim gregariis, dimidiatis 150-180 μ. diam., subastomis, opacis, contextu radiante; ascis ovoideis, subsessilibus 35 × 15, octosporis; sporidiis hyalinis dein brunneis, ellipticis, medio 1-septatis vix constrictis 13 × 3.

Hab. in foliis vivis arboris ignotæ, Java (Clautriau).

21. **Asterina Libertiæ** Syd. Ann. Mycol. 1904, p. 167. — Amphigena; 3057
peritheciis in greges rotundatos vel ellipticos subinde irregulares 1-5 mm. longos sæpius circulariter dispositis, plerumque etiam folia tota tegentibus, superficialibus, oculo nudo conspicuis, atris, contextu radiato, mycelio ex hyphis repentibus nodulosis anastomosantibus composito, stellatim dehiscentibus, 140-200 μ. diam.;

ascis globosis vel subglobosis, sessilibus, superne incrassatis, 30–42 ≈ 28-38, octosporis; sporidiis di-tristichis, ellipsoideo-oblongis, utrinque rotundatis, medio 1-septatis leniter constrictis, primitus hyalinis, tandem fuscis, 18-25 ≈ 9-11, loculo superiore interdum paullo majore, plerumque autem loculis duobus æqualibus.

Hab. in foliis vivis Libertiæ spec., Concepcion in Chile, frequens.

22. **Asterina Pandani** Rostr. in Bot. Tidsskrift. Copenhagen 1902, 3058
vol. 24, p. 211. — Maculis epiphyllis, atris, rugosis, usque 1 cm. latis, margine fibrilloso; peritheciis membranaceis, lenticularibus; ascis ovatis 46 ≈ 33; sporidiis ellipsoideis 15 ≈ 13.

Hab. in foliis Pandani. Siam Asiæ merid.

23. **Asterina Stuhlmanni** P. Henn. Notizbl. bot. Gart. Berl. 1903, 3059
pag. 239. — Maculis epiphyllis, rotundatis vel effusis, bullatis, flavo-brunneolis, dein centro fuscis; peritheciis sparsis epiphyllis, lenticularibus 120-140 μ. diam., atro-fuscis, pertusis, radiato-cellulosis, mycelio fusco circumdatis; hyphis ramosis, septatis, sæpe torulosis, 3-4 μ. crassis; conidiis ellipsoideis vel ovoideis, utrinque obtusis, fuscis, medio 1-septatis, sæpe constrictis, plerumque 8-14 ≈ 4-5; ascis ovoideis, apice rotundatis, tunicatis, 8-sporis, 25–32 ≈ 18-24; sporidiis conglobatis, ovoideis vel ellipsoideis, primo hyalinis, 2 grosse guttulatis, dein fuscis medio 1-septatis, constrictis, episporio granulato-verrucoso, 12-15 ≈ 8-9.

Hab. in foliis Ananassæ cultæ Dar-es-Salam Africæ orient. (Stuhlmann). — Sporidiis verruculosis ad *A. alpinam* et *mexicanam* accedit, ceterum omnino diversa.

24. **Asterina Cyathearum** Rac. — Syll. fung. XVI, p. 649. — Huc ducenda *Halbania Cyathearum* Rac. Cryptog. parasit exsicc. Java n. n. 89 (saltem in meo exempl.), nam diagnosim novi generis nullibi vidi. In auctoris indice inter Phacidiaceas locatur.

KUSANOBOTRYS P. Henn. in Hedw. 1904, p. 141 (Etym. a cl. botanico *Kusano* japonensi). — Perithecia in mycelio crustaceo atro, stromatico superficialia, botryosa, subovoidea, membranacea, atra, basi setulis superantibus circumdata. Asci ovoidei 4-8-spori aparaphysati; sporidia ovoidea 1-septata, fusca. — An potius ad Perisporiaceas prope *Meliolam* referendum genus?

1. **Kusanobotrys Bambusæ** P. Henn. in Hedw. 1904, p. 141. — Ma- 3060
culis epiphyllis, gregariis, rotundatis, atris, sæpe confluentibus, 2-3 mm. diam., mycelio crustaceo substromatico; hyphis olivaceo-

fuscis, ramosis, ca. 3 μ. crassis; conidiis ovoideis, olivaceo-fuscis, medio 1-septatis 13-20 × 6-10; peritheciis 5-12 vel plurimis, botryose congestis, basi setulis atris, erectis ca. 108 × 5-15, circumdatis, piriformibus, apice rotundatis subostiolatis, atro-olivaceis, parenchymatico-cellulosis, 60-80 × 50-60; ascis ovoideis, apice crasse tunicatis, rotundatis 4-8-sporis ca. 40 × 30; sporidiis conglobatis, ovoideis, rotundatis, medio 1-septatis, vix constrictis, primo hyalinis dein fuscis vel subatris, 16-23 × 8-10.

Hab. in foliis Bambusæ Veitchii, Nikko Japoniæ (Kusano).

Sect. 2. Hyalodidymæ.

ASTERELLA Sacc. — Syll. I p. 42, IX p. 393, XI p. 256, XIV p. 698, XVI p. 649.

1. **Asterella manaosensis** P. Henn. Fungi Amaz. III, 1904, p. 370, cum icon. — Maculis mycelii epiphyllis, rotundatis, atro-suberustaceis, ca. 5-8 mm. diam.; hyphis repentibus ramosis, torulosis, fuso-atris, 4-5 μ. crassis; peritheciis dense gregariis confluentibusque, lenticularibus, atro-brunneis, radiato-cellulosis, pertusis, ca. 180-250 μ.; ascis clavatis, apice rotundato-tunicatis, basi attenuatis, curvulis, 8-sporis, 50-80 × 12-18; sporidiis subdistichis vel subconglobatis, oblonge ovoideis, clavatis v. ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictiusculis, hyalinis, 12-15 × $4^1/_2$-$5^1/_2$. 3061

Hab. in foliis Anonaceæ cujusdam Manáos, Rio Negro, Amazoniæ.

2. **Asterella Eupomatiæ** P. Henn. in Hedw. 1903, p. (78). — Maculis rotundatis v. indeterminatis, fuscis, hypophyllis; peritheciis minutis, lenticularibus, radiato-cellulosis, atris ca. 60 μ. diam.; hyphis repentibus, ramosis, atro-fuscis, septatis, ca. 3-3,5 crassis; conidiis subellipsoideis v. ovoideis, atris, 2-septatis, 10-12 × 5-6; ascis subglobosis v. ovoideis, octosporis 25-30 × 22-28; sporidiis conglobatis, ellipsoideis v. ovoideis, hyalinis, 1-septatis, valde constrictis, 12-18 × 5-6. 3032

Hab. in foliis Eupomatiæ laurinæ, Eumundi, South Queensland Australiæ.

3. **Asterella rufo-violascens** (P. Henn.) Sacc. *Asterina rufo-violascens* P. Henn. in Hedw. 1904, pag. 83. — Mycolio crustaceo, fragili, atro maculiformi rotundato, 2-3 mm. diam.; peritheciis 3063

lenticulari-rotundatis, sicco subcupulatis, membranaceis, atris, radiato-cellulosis, rufo-violascentibus, poro pertusis; hyphis mycelii ramosis, septulatis, radiatis, varie crassis; conidiis fusoideis, 1-septulatis, rufis, 20-25 × 4; ascis clavatis vertice rotundatis, tunicatis, octosporis, 35-45 × 13-15; sporidiis subdistichis, oblongo ovoideis, utrinque obtusis, ad basim 1-septatis, constrictis, hyalinis 12-15 × 5-6.

Hab. in foliis Begoniæ, Serra das Orgaos, Rio de Janeiro Brasiliæ (E. Ule).

4. **Asterella Parmularia** P. Henn. Fungi Amaz. IV, in Hedw. 1905, p. 64. — Peritheciis hypophyllis in mycelio *Asterinæ* parasitantibus, scutellato-rotundatis, hyphis repentibus, septatis, vix ramosis, subhyalinis, 2-4 μ. cr. circumdatis, 80-100 μ., radiato-cellulosis, brunneis, poro pertusis; ascis clavatis, apice incrassatis, rotundato-obtusiusculis, octosporis, 25-35 × 8-10; sporidiis distichis, clavatis, obtusis, medio 1-septatis, haud constrictis, 8-10 × 3-4, hyalinis. 3064

Hab. in foliis Cassiæ spec., Tarapoto, Rio Amazonas.

5. **Asterella Gardoquiæ** Syd. Ann. Mycol. 1904, pag. 169. — Hypophylla; peritheciis sparsis v. hinc inde subgregariis, minutis, punctiformibus, 70-140 μ. diam., radiatim contextis, irregulariter vel subinde substellatim dehiscentibus, membranaceis, mycelio ex hyphis tenuibus ca. 2-2 $^1/_2$ μ. crassis anastomosantibus septatis ramosisque composito cinctis; ascis subglobosis, sessilibus, apice vix v. leniter incrassatis, 25-32 × 14-22, octosporis; sporidiis di-tristichis, ovato-oblongis, 1-septatis, non constrictis, apice rotundatis, basim versus leniter tenuatis, hyalinis, 14-17 × 5-6. 3065

Hab. in foliis vivis Gardoquiæ multifloræ, Concepcion in Chile (F. W. Neger).

6. **Asterella microtheca** (Pat.) Sacc. *Asterina microtheca* Pat. Bull. Soc. Mycol. 1902, p. 301. — Maculis amphigenis, superficialibus, brunneis, sparsis aut confluentibus, orbicularibus, 2-4 mm. latis; peritheciis numerosis, atris, minutis 70-80 μ. diam., poro pertusis, globoso-depressis, contextu minute celluloso, brunneo; hyphis prostratis, radiantibus, rectis, subsimplicibus 80-130 μ. longis, 4 μ. cr., brunneis, hyphopodiis destitutis, e basi cnatis, insidentibus; ascis ovoideis, subsessilibus, minutis 20-25 × 13, octosporis; sporidiis hyalinis, ovoideis v. subcylindraceis 6-8 × 3, medio 1-septatis. 3066

Hab. in foliis Leucopsidis Tweediei in Brasilia (Glaziou). — *A. irradianti* Pat. affinis.

7. **Asterella macularis** Syd. Ann. Mycol. 1904, p. 168. — Epiphylla; 3067

maculas rotundatas 2-4 mm. diam. dein confluentes tandemque magnam folii partem occupantes atro-purpureas efficiens; perithecis sparsis vel subgregariis, rotundatis vel rotundato-ovatis, radiatim contextis, irregulariter rimose dehiscentibus, atris, 150–500 μ. diam., basi hyphis radiantibus ramosis septatis brunneis ca. $3^1/_2$ μ. crassis cinctis; ascis oblongo-cylindraceis, apice crassius tunicatis, sessilibus, 50-70 × 10-16, octosporis; sporidiis distichis, ovato-oblongis, 1-septatis, loculo superiore minore rotundato, inferiore longiore attenuato, non constrictis, hyalinis, $12^1/_2$-$16^1/_2$ × $4^1/_2$-$5^1/_2$.

Hab. in foliis vivis Myrceugeniæ Pitræ, Concepcion in Chile (F. W. Neger).

8. **Asterella verruculosa** Syd. Ann. Mycol. 1904, p. 168. — Mycelio 3068
maculas nigras amphigenas rotundatas v. confluentes ca. 3-8 mm. latos efformante; hyphis mycelicis castaneo-brunneis, nodulosis, anastomosantibus, ramosis, septatis; perithecis sessilibus, applanatis, ca. $^1/_4$ mm. diam., atris, membranaceis, centro perforatis; ascis saccatis, apice rotundatis, breviter stipitatis, 50–75 × 22–31, octosporis; sporidiis distichis, clavatis, medio 1-septatis, constrictis, loculo supero rotundato latiore verruculoso, inferiore deorsum attenuato angustiore levi v. sublevi, totis 22-25 μ. longis, loculo supero 8-11 μ. lato, inferiore $4^1/_2$–8 μ. lato.

Hab. in foliis Myrrhinii rubriflori, Rio Grande do Sul Brasiliæ (Reineck et Czermak, comm. F. W. Neger). — Sporidiis peculiaribus prædistincta species.

9. **Asterella Aspidii** P. Henn. in Hedw. 1904, pag. 141. — Maculis 3069
superficialibus, rotundatis, atris, crustaceis, ca. 5 mm. diam.; perithecis gregariis, interdum confluentibus, lenticularibus, atris, radiato-cellulosis, poro pertusis, lobato-dehiscentibus, ca. 60–90 μ. diam., basi hyphis fuscis 3–3, 5 μ. circumdatis; ascis ovoideis 20–30 × 18–20; sporidiis conglobatis ovoideis v. ellipsoideis, utrinque obtusis, medio 1-septatis, 10-12 × 6-8, hyalino-fuscidulis.

Hab. in foliis Aspidii falcati var., Fortuna Tosa, Nekodati Japoniæ (Yoshinaga).

Sect. 3. Hyalophragmiæ.

ASTERIDIUM Sacc. — Syll. I p. 49, IX p. 435, XI p. 269, XIV p. 699, XVI p. 650.

1. **Asteridium ferrugineum** P. Henn. in Engl. Bot. Jahrb. 1903, 3070

p. 47. — Maculis hypophyllis, subrotundatis, explanatis, ferrugineis; hyphis repentibus, brevibus, confluentibus, septatis, subtorulosis, ramosis ca. 3-5 μ. cr., ochraceo-fuscidulis; peritheciis subglobosо-lenticularibus, poro pertusis, membranaceo-cellulosis, fuscis, margine radiantibus, ochraceo-fuscidulis 140-160 μ. diam.; ascis clavatis, apice rotundatis, crasse tunicatis, octosporis, 25-40 × 8-10; sporidiis conglobatis, oblonge cylindraceis vel clavatis, utrinque obtusis, 3-septatis, constrictis, hyalinis, 15-20 × 3,5-4.

Hab. in foliis Cocöes nuciferæ, Das-es-Salam, Zanzibar Africæ orient. (Stuhlmann).

2. **Asteridium Heteropteridis** P. Henn. Fungi S. Paulenses I, in Hedw. 3071
1902, p. 108. — Peritheciis sparsis hypophyllis, in villo nidulantibus; hyphis subhyalino-fuscidulis repentibus, septatis ca. 3 μ. cr., circumdatis, convexo-lenticularibus, 140-200 μ. diam., atro-brunneis, membranaceis, astomis; ascis clavatis, rectis vel curvulis, apice obtusis, 35-50 × 7-10, octosporis; paraphysibus filiformibus, hyalinis, 2 μ. cr.; sporidiis oblongis vel clavatis, subdistichis, obtusis, 2-3-septatis, 12-14 × 3-4 hyalinis.

Hab. in foliis Heteropteridis, in horto botanico S. Paulo Brasiliæ.

Sect. 4. Phæophragmiæ.

ASTERIDIELLA Mac. Alp. — Syll. XIV p. 701.

1. **Asteridiella radiata** P. Henn., Fungi S. Paulenses I, in Hedw. 3072
1902, p. 108. — Mycelio radiato-effuso, atro, amphigeno; hyphis repentibus fuscis, septatis 4-6 μ. cr.; conidiis clavatis, apice obtusis, 3-5-septatis, atro-fuscis, 20-30 × 5-6; stipite elongato usque ad 40 μ. longo, hyalino; peritheciis gregariis subhemisphæricis, poro pertusis, contextu membranaceis, radiato-cellulosis, atro-brunneis 60-80 μ. diam.; ascis clavatis, apice obtusis, octosporis, 30-49 × 10-13; sporidiis conglobatis, clavatis, apice obtusis, basi subacutis, 5-septatis, haud constrictis, hyalino-fuscidulis, 25-30 × 3,5.

Hab. in foliis Lauraceæ cujusdam prope S. Paulo Brasiliæ.

2. **Asteridiella Marcgraviæ** P. Henn. Fungi Amaz. III, 1904, p. 376. 3073
cum icon. — Peritheciis hypophyllis in maculis subrotundatis, atris, scutellato-dimidiatis vel lenticularibus, atris, radiato-cellulosis, astomis, pertusis, ca. 150-200 μ. diam.; hyphis radiantibus, atris ramosis, atro-fuscis; ascis oblonge clavatis, rotundatis, basi

substipitatis curvatis, paraphysatis, 8-sporis, ca. 45-55 × 14-16; sporidiis subdistichis, oblonge cylindraceis, utrinque obtusis, 3-septatis, primo hyalinis, dein fuscis, 25-35 × 3-4.

Hab. in foliis Maregraviæ flagellaris, Juruá-Miry, Rio Juruá Amazoniæ.

3074 3. **Asteridiella Citharexyli** P. Henn. Fungi S. Paulenses I, in Hedw. 1902, pag. 108. — Mycelio obsoleto v. hyphis fuscidulis, sparsis, repentibus 3,5-4 μ.; peritheciis amphigenis gregarie sparsis, punctiformibus, sublenticularibus, atris, margine membranaceo-fimbriatis, pallidioribus 100-140 μ. diam., astomis; ascis oblonge ellipsoideis, v. ovoideis, utrinque obtusis, octosporis, 25-40 × 14-18; sporidiis conglobatis, fusoideis, utrinque acutis, 1-dein 4-septatis, hyalinis, dein fuscis 13-22 × 3-4.

Hab. in foliis Citharexyli Pœppigii, prope S. Paulo Brasiliæ.

Fam. 7. Lophiostomaceæ Sacc.

Sect. 1. Phæosporæ.

LOPHIELLA Sacc. — Syll. II p. 673.

3075 1. **Lophiella Bambusæ** P. Henn. F. javanici novi, in Hedw. 1902, p. 143. — Maculis oblongis interdum confluentibus, subochraceis; peritheciis epiphyllis sparse gregariis, innato-subsuperficialibus, atro-carbonaceis, rotundato-pulvinatis, vertice poroso-rimosis, late apertis, ca. 1 mm. diam.; ascis clavatis apice rotundatis, octosporis, 80-90 × 15-16; paraphysibus filiformibus hyalinis; sporidiis distichis oblongis vel clavatis, obtusis, 20-30 × 6-8, continuis, fusco-brunneis.

Hab. in foliis Bambusæ spec. in insula Java.

Sect. 2. Hyalodidymæ.

LOPHIOSPHÆRA Trev. — Syll. II p. 675, IX p. 1075, XI p. 383, XIV p. 702.

3076 1. **Lophiosphæra Antillarum** Pat. in Duss. Enum. Champ. Guadel. 1903, p. 83. — Peritheciis sparsis v. inordinate gregariis, cortice superficie atrato immersis, $^1/_3$ mm. diam., ostiolis exsertis, erectis, compressis, contextu coriaceo nigro, celluloso; nucleo albo; ascis

cylindraceis apice rotundatis, basi tenuatis, 160-200 × 25, octosporis; paraphysibus copiosis, linearibus, ramosis et vulgo apice contortis; sporidiis biseriatis, elongato-fusoideis rectis, curvulisve, muticis, 1-septatis, constrictis, grosse 2-4-guttulatis, 53-63 × 12-14, hyalinis dein pallidissime fuligineis.

Hab. in ramis emortuis Ingæ laurifoliæ, Camp-Jacob Guadalupæ.

Sect. 3. Phæodidymæ.

SCHIZOSTOMA Ces. et De Not. — Syll. II p. 673, IX p. 1074, XI p. 382, XIV p. 702, XVI p. 650.

1. **Schizostoma Cercocarpi** Earle, Plantæ Bakerianæ, fasc. II, Fungi, p. 18. — Peritheciis ovoideis 300 × 250 μ., nigris vix lucentibus, dense congestis v. confluentibus in crusta stromatica insidentibus, ostiolo minute et obsolete pliciformi donatis; ascis lineari-cylindraceis 80 × 6; paraphysibus numerosis; sporidiis monostichis, fusiformibus, 1-septatis, constrictis, pallide olivaceo-brunneis, 16-18 × 4. 3077

Hab. in ligno emortuo Cercocarpi, Hermosa, South Colorado, Amer. bor.

Sect. 4. Hyalophragmiæ.

LOPHIOTREMA Sacc. — Syll. II p. 678, IX p. 1076, XIV p. 703.

1. **Lophiotrema Cercocarpi** Earle, Plantæ Bakerianæ fasc. II, Fungi, p. 17. — Peritheciis dense gregariis, in areis nigrescentibus insidentibus, nigris, conicis, basi immersis, ostiolo conico-papillato donatis, compressis; ascis clavatis 80–100 × 12-15; paraphysibus filiformibus, asco longioribus; sporidiis distichis, fusoideo-falcatis, utrinque acutis, non appendiculatis, 3-5-septatis, parce constrictis, guttula magna utroque polo donatis, hyalinis v. pallide olivaceis, 35 × 8. 3078

Hab. in ligno emortuo Cercocarpi, Hermosa, Colorado Amer. borealis.

Sect. 5. Phæophragmiæ.

LOPHIOSTOMA (Fr.) Ces. et De Not. — Syll. II p. 689, IX p. 1083, XI p. 383, XIV p. 704, XVI p. 651.

1. **Lophiostoma quadrinucleatum** Karst. — Syll. II, p. 689. — var. 3079
Sarothamni Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 265. — A typo differt perithecis densius confertis, 300-500 μ. diam. ascis longioribus et angustioribus 90-130 × 10; sporidiis submonostichis, subfusoideis, brevioribus 15-17 × 8-10, triseptatis, brunneis.

Hab. in ramis decorticatis Sarothamni scoparii, Luxemburg.

2. **Lophiostoma Cephalanthi** Fairm. Journ. of Mycol. 1904, p. 230. — 3080
Perithecis ligno immersis, superne hemisphærico-prominentibus, centro ostiolo compresso emergente præditis; ascis tereti-clavatis longe sensim stipitatis 100-130 × 10; sporidiis oblongo-fusoideis, rectis curvulisve, 5-7-septatis, initio 6-8-guttulatis, utrinque tenuatis, ad septa leniter constrictis, brunneis, 27-30 × 6-7; paraphysibus filiformibus nucleolatis.

Hab. in ramis decorticatis Cephalanthi occidentalis, Ridgeway, N. Y. Amer. bor. — Sporidia medio disticha, utrinque monosticha.

3. **Lophiostoma insidiosum** (Desm.) De Not. — Syll. II, p. 703. — 3081
var. **sessile** Rehm in Hedw. 1901, p. (104). — Perithecis sparsis, emergentibus, dein plane sessilibus, 0,5 mm. diam.

Hab. in ramulis Ericæ carneæ, in alp. Bavariæ. — A proxime affini *L. caulium* sporidiis plerumque appendiculatis differt.

4. **Lophiostoma roseo-tinctum** Ell. et. Ev. — Syll. IX, p. 1085. — 3082
var. **ebulicola** Feltg. Vorstud. Luxemb. Nachtr. III, 1903, p. 263. — A typo præcipue distinguitur perithecis confertioribus; ascis longioribus et angustioribus 120-140 × 8-10; sporidiis plerumque 3-5-septatis, fusoideis, non appendiculatis.

Hab. in caulibus emortuis Sambuci Ebuli, Luxemburg.

5. **Lophiostoma quercinum** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 3083
1903, p. 265, *Lophiotrema quercinum* Feltg. II, p. 186. — Perithecis sparsis vel gregariis, ligno semiimmersis, globoso-conoideis, ostiolo vario, nunc subpapillato, nunc compresso, nunc subangulose, demum deciduo, nigris, carbonaceo-fragilibus 300-600 μ. diam.; ascis tereti-clavatis, breve stipitatis, 85-110 × 13-18, filiformi-paraphysatis suboctosporis; sporidiis mono-distichis, fusiformibus, plerumque acutis, rectis curvulisve, diu 1-septatis hyalinis, 4-8 guttulatis, demum brunneis, tenuitor 3-6-septatis, plerumque hinc vel utrinque appendiculatis et muco obductis, 33 × 5-7.

Hab. in ramis emortuis et ligno Quercus Roboris, Luxemburg. — *Lophiost. perverso* et *Loph. vaganti* affine.

6. **Lophiostoma occidentale** Tracy et Earle, Plantæ Bakerianæ fasc. I, 3084
Fungi p. 31. — Peritheciis sparsis, prominentibus, nigris, inferne rugosis, superne levibus, ovalibus 1-1,5 × 0,5-1 mm., ostiolo compresso; ascis clavato-cylindraceis, longe stipitatis 150-160 × 20; paraphysibus longis, filiformibus; sporidiis ellipticis, superne rotundatis, inferne subacutis, fuscis, 5-septatis, 30-40 × 10-15.

Hab. in ramulis Juniperi monospermæ, Mancos, South Colorado, Amer. bor.

BRIGANTIELLA Sacc. — Syll. II p. 707 (ut subgenus).

1. **Brigantielia pallida** P. Henn. F. javanici novi, in Hedw. 1902, 3085
p. 143. — Peritheciis hypophyllis, sparsis v. subaggregatis, innato-superficialibus, membranaceo-subcarbonaceis, pulvinato-hemisphæricis, albido-villosis, clausis, obtusis, dein apice poroso-apertis, ca. 0,5 mm. diam.; ascis clavatis, vertice obtuso-rotundatis, basi attenuatis, curvatis, octosporis, 150-200 × 20-25, paraphysatis; sporidiis distichis oblonge clavatis, apice rotundatis, basi hyalino-rostratis, 5-septatis, haud constrictis, brunneis vel atro-fuscis, 28-40 × 10-14.

Hab. in foliis Hibisci spec., Buitenzorg Javæ.

Sect. 6. Phæodictyæ.

PLATYSTOMUM Trevisan in Bull. Soc. Bot. Belgique 1877, vol. XVI, pag. 16. — Syll. XIV p. 27. — *Lophidium* Sacc. Mich. I, p. 340 (1878) — Syll. II p. 710, IX p. 1091, XI p. 384, XIV p. 706, XVI p. 653. — Huc ducendæ sunt species sequentes: *Platystomum compressum* (Pers.) Trev. *Pl. fraudulentum* (Diet. M.) Trev., *Pl. gregarium* (Fuck.) Trev., *Pl. hygrophilum* (Sacc.) Trev., *Pl. ramorum* (Nke) Trev., *Pl. nuculoides* (Sacc.) Lind., *Pl. Spartii* (Fabr.) Lind., *Pl. Cotini* (Fabr) Lind., *Pl. thyridioides* (Sacc. et Speg.) Lind., *Pl. fenestrale* (Cooke et Ell.) Lind., *Pl. obtectum* (Peck) Lind., *Pl. ambiguum* (Fabr.) Sacc. et D. Scc., *Pl. aromaticum* (Fabr.) Sacc. et D. Sacc., *Pl. confertum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. Cotini* (Fabr.) Sacc. et D. Sacc. *Pl. curtum* (Tr.) Sacc. et D. Sacc., *Pl. deflectens* (Karst.) Sacc. et D. Sacc., *Pl. diminuens* (Pers.) Sacc. et D. Sacc., *Pl. graphidosporum* (Anzi) Sacc. et D. Sacc., *Pl. inops* (Pass.) Sacc. et D. Sacc., *Pl. melanommoides* (Speg.) Sacc. et D. Sacc., *Pl. minus* (Ell.) Sacc. et D. Sacc., *Pl.*

nitidum (Ell. et Ev.) Sacc. et D. Sacc., *Pl. nobile* Sacc. et D. Sacc., *Pl. pachysporum* Sacc. et D. Sacc.. *Pl. pachystomum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. Populi* (Fabr.) Sacc. et D. Sacc., *Pl. psilogrammum* (Dur. et Mont.) Sacc. et D. Sacc., *Pl. purpurascens* (Mont.) Sacc. et D. Sacc., *Pl. Ritro* (Pass.) Sacc. et D. Sacc., *Pl. ruborum* (Crouan) Sacc. et D. Sacc., *Pl. Santolinæ* (Fabr.) Sacc. et D. Sacc., *Pl. Scorpii* (Fabr.) Sacc. et D. Sacc., *Pl. subcompressum* (Karst.) Sacc. et D. Sacc., *Pl. subgregarium* (C. Mass.) Sacc. et D. Sacc., *Pl. tingens* (Ell.) Sacc. et D. Sacc. *Pl. incisum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. trifidum* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. rude* (Ell. et Ev.) Sacc. et D. Sacc., *Pl. anomalum* (Atkin.) Sacc. et D. Sacc. *Pl. chartarum* (Sacc. et Syd.) Sacc. et D. Sacc.

1. **Platystomum hysterioides** Earle, Plantæ Bakerianæ fasc. II, Fungi 3086
p. 18. — Peritheciis sparsis, elongatis 1 × 0,5 mm. rugosis, nigris, basi fibrillis vestitis in rima longitudinali apertis; ostiolo inconspicuo; ascis cylindraceis breve stipitatis 100-140 × 12; paraphysibus filiformibus, numerosis; sporidiis ovoideis 3-septatis, septo mediano constrictis, longitudinaliter divisis, initio brunneolis, dein intense brunneis, 20 × 10.

Hab. in ramis decorticatis Amelanchieris et Fendleræ spec. Hermosa South Colorado, Amer. bor.

2. **Platystomum Amelanchieris** Tracy et Earle Plantæ Bakerianæ, 3087
fasc. I, pag. 32. — Peritheciis sparsis, immersis, nigris, inferne rugosis, superne lucentibus, fere hemisphæricis 0,5-1 mm. diam. sæpe irregulariter elongatis, ostiolo, inconspicuo donatis; ascis cylindraceis, stipitatis, 140-150 × 13-15; sporidiis oblique monostichis, fuscis, dein opacis, ellipticis, utrinque acutis, 3-5-septatis, muriformibus, plus minusve constrictis, 22-24 × 7-8.

Hab. in ramis decorticatis Amelanchieris spec., Mancos, South Colorado, Amer. bor.

3. **Platystomum Aceris** Tracy et Earle, Plantæ Bakerianæ, fasc. I, 3088
Fungi p. 32 (*Lophidium* Sacc.). — Peritheciis sparsis, nigris, rugosis, compressis 0,8-1 × 0,5-0,8 mm. diam., ostiolo depresso, ellipticis; ascis oblongis, stipitatis 100-120 × 14-16; paraphysibus numerosis filiformibus; sporidiis oblique monostichis, ovalibus, 3-septatis, ad septum medianum profunde constrictis, muriformibus, intense brunneis 17-18 × 9-10.

Hab. in ramis decorticatis Aceris glabri, La Plata River, South Colorado, Amer. bor.

4. **Platystomum desertorum** Tracy et Earle Plantæ Bakerianæ fasc. I, 3089
Fungi pag. 32. — Peritheciis sparsis, subsuperficialibus, nigris, rugosis, hemisphæricis vel ovatis, 0,5 mm. diam., ostiolo elliptico vel fere circulari donatis; ascis cylindraceis, longe stipitatis 135-150 × 11-13; paraphysibus numerosissimis, filiformibus asco longioribus; sporidiis oblique monostichis, ovalibus, intense brunneis, 5-7-septatis, ad septum medium valde constrictis, muriformibus, 22-24 × 8-9.

Hab. in caulibus emortuis « Sage Brush » dictis (Artemisiæ?) Mancos, South Colorado, Amer. bor.

5. **Platystomum Salicum** Earle, Plantæ Bakerianæ, II, fasc. I, Fungi 3090
p. 18. — Peritheciis sparsis initio velatis, dein erumpentibus, nigris, lucentibus, oblongis 0,7-1 mm. longis, 0,5 mm. latis, ostiolis pertusis, generaliter immersis, longis quantum latis; ascis clavatis 80-100 × 16; paraphysibus numerosis, filiformibus; sporidiis subdistichis 5-7-septatis, ad septum medianum leviter constrictis, utrinque subacutis, curvulis, cellulis medianis longitudinaliter septatis initio pallide brunneolis dein fuligineis opacisque, 30-35 × 7-8.

Hab. in ramulis emortuis Salicis spec., Hermosa, South Colorado, Amer. bor.

6. **Platystomum alpinum** Tracy et Earle, Plantæ Bakerianæ fasc. I, 3091
Fungi p. 32. — Peritheciis, in areis magnis, sparsis, subsuperficialibus, nigris, rugosis, hemisphæricis vel subovatis, 0,8-1 mm., ostiolo obsolete papillato, longiusculo, donatis; ascis cylindraceis, breve-stipitatis 140-160 × 12-14; paraphysibus numerosis, filiformibus; sporidiis oblique monostichis late ellipticis vel ovatis, brunneis dein opacis, 5-septatis, ad septum medium valde constrictis, loculo centrali longitudinaliter septato, 20-22 × 8-10.

Hab. in ligno emortuo Populi tremuloidis, Bob Creek, South Colorado, Amer. bor. — *Loph. trifido* E. et E. paraffine.

7. **Platystomum Aspidii** (E. Rostr.) Sacc. et D. Sacc. *Lophidium* 3092
Aspidii Rostr. Norske Ascom. 1904, p. 12 (Vidensk. Skrift.). — Peritheciis sparsis, tectis demum subliberis, ostiolo valde compresso; ascis cylindraceis 150-155 × 15-20; sporidiis fusoideis, 9-septatis, 45-52 × 6-8.

Hab. in stipitibus Aspidii spinulosi, Alstadhaug Norvegiæ.

Fam. 8. **Hemihysteriaceæ** Speg.

HYSTEROSTOMELLA Speg. — Syll. IX p. 1098, XI p. 385, XIV p. 706, XVI p. 655.

1. **Hysterostomella sabalicola** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 185. — Maculis parvis, irregularibus, luteis; stromatibus sparsis hypophyllis, nigris, scutellatis, parvulis, irregulariter ovatis 0,8-1 mm. diam., margine constrictis; peritheciis elevatis, rugosis, rima percursis, labiis irregulariter conniventibus; ascis ovalibus 40-50 × 20, octosporis; sporidiis irregulariter in asco dispositis, 1-septatis, fere hyalinis (immaturis?), 20 × 6. 3093

   Hab. in foliis Sabalis Palmetto, Longboat Key, Fla. Amer. borealis.

2. **Hysterostomella floridana** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 185. — Maculis nullis; stromatibus sparsis, epiphyllis, nigris, superficialibus crustiformibus, 1-4 mm. diam., centro rugosis, rima connivente percursis, margine levibus, subiculo ex hyphis anastomosantibus fuscis composito, ut in *Lembosia*; ascis late ovalibus, octosporis, aparaphysatis, 30-35 × 20-25; sporidiis inordinatis, anguste ovatis, 1-septatis, constrictis, apice v. utrinque obtusis, hyalinis pallide olivaceis (probabiliter maturitate intense coloratis) 16-18 × 6-7. 3094

   Hab. in foliis Ardisiæ Pickeringii, Manatee, Fla. Amer. borealis.

3. **Hysterostomella Uleana** Rehm — Syll. XVI, p. 655. — var. **Asclepiadeæ** P. Henn. Hedw. 1904, p. 90. — Peritheciis amphigenis vel caulicolis, rotundato-maculiformibus, atris 5-7 mm. diam., crustaceis, medio congestis, linearibus, curvatis, rima longitudinaliter angusta dehiscentibus, contextu parenchymatico atro; ascis oblonge ovoideis, vertice tunicatis, rotundatis, octosporis, 26-35 × 14-20; paraphysibus filiformibus 1,5 μ. crassis, epithecio olivaceo conglutinatis; hypothecio olivaceo; sporidiis subdistichis vel conglobatis ellipsoideis, utrinque obtusis, medio 1-septatis, valde constrictis, hyalino-fuscidulis. 3095

   Hab. in foliis caulibusque Asclepiadaceæ cujusdam, Tijuca, Rio de Janeiro Brasiliæ (E. Ule).

PARMULARIELLA P. Henn. Fungi Amaz. II p. 266 (1904) (Etym. a

Parmularia, cui affinis). — Stromata superficialia dimidiato-scutellata; perithecia in stromate immersa, radiantia, rima longitudinaliter dehiscentia; asci ovoidei v. clavati, 8-spori; sporidia oblonge clavata 1-dein 3-septata, omnino hyalina. — *Parmularia* affinis et simillima, sed sporidiis hyalinis, deinde 3-septatis.

1. **Parmulariella Vernoniæ** P. Henn. l. c. cum icone. — Maculis fu- 3096
scidulis rotundatis; stromatibus plerumque hypophyllis, sparsis v. subgregariis superficialibus, rotundato-scutellatis, centro papillato-ruguloso, radiatim subplicatis, atro-cellulosis; hyphis radiantibus, castaneis, 3-4 μ. crassis circumdatis; peritheciis subimmersis radiatis, rectis vel flexuosis, rima longitudinaliter dehiscentibus; ascis subovoideis vel clavatis, 8-sporis, vertice rotundatis, tunicatis, basi substipitatis curvulis, 25-45 × 12-20; sporidiis conglobatis clavatis, hyalino-tunicatis, medio 1-septatis, constrictis, deinde plus minus 3-septatis, omnino hyalinis.

Hab. in foliis Vernoniæ spec., Tarapoto Peruviæ.

Fam. 9. Hysteriaceæ Corda.

Sect. 1. Hyalosporæ.

SCHIZOTHYRIUM Desm. — Syll. II p. 723, IX p. 1100, XIV p. 710, XVI p. 657.

1. **Schizothyrium Hyperici** (Vesterg.) Sacc. et D. Sacc. *Aporia Hype-* 3097
rici Vesterg. Micr. rariores selecti in Bot. Not. 1902, p. 115. — Peritheciis minutissimis, innatis, longitudinaliter seriatis, ambitu ellipticis, utrinque acutatis, udis, per rimam latiusculam, longitudinalem, discum album, revelantem dehiscentibus, nigris 400-500 × 150-200; ascis cylindraceo-clavatis, deorsum tenuatis, sed subsessilibus, apice rotundatis, octosporis, 60-85 × 12-15; sporidiis mono-distichis obovato-oblongis, plerumque inæquilateris, utrinque rotundatis, continuis, hyalinis, 1-guttatis 13-15 × 5-6.

Hab. in caulibus siccis Hyperici quadranguli in insula Abro Rossiæ balticæ.

2. **Schizothyrium Pteridis** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 3098
1903, pag. 103. — Peritheciis gregariis basi insculptis, oblongis, rectis vel curvis, acutiusculis, rima tenui dehiscentibus, nigris, 1000-1350 × 50-100, disco vix manifesto; ascis oblongo-fusoideis v. clavulatis, breve stipitatis, 22-30 × 5,5-6, filiformi-paraphysatis;

sporidiis oblongis, utrinque obtuse tenuatis, hyalinis eguttulatis, 1-cellularibus (semper ?), 5,5-6 × 1.

Hab. in stipitibus Pteridis aquilinæ, Luxemburg. — An forte idem ac *Aulographum aquilinum,* adhuc immaturum ?

HENRIQUESIA Pass. et Thüm. — Syll. II p. 726, XVI p. 658.

1. **Henriquesia italica** S et Cav. — Syll. XVI, p. 658 — Teste Doct. Paoli in App. N. G. B. I. 1905, p. 93, c. ic., diagnosis speciei, quoad perithecium, sic reformanda: — Peritheciis superficialibus, sparsis, coriaceo-carbonaceis, ovatis, profunde sulcatis, quatuor sulcis majoribus rhombice dispositis, opacis, atris, rima inæquali, mediana, plus minusve lata, $^3/_4$-1 mm. longis, paulo minus latis; ascis clavatis, longiuscule tenuato-stipitatis 60-65 × 7-8 (p. spor.), 8-sporis; sporidiis oblique monostichis, ovato-oblongis, unicellularibus utrinque obtusulis, interdum inæquilateralibus 7-8 × 2,5-3; paraphysibus filiformibus copiosis, apice massa grumosa fusce olivacea conglomeratis. 3099

Hab. ad ramos decorticatos Abietis albæ, Vallombrosa, Italia (Cavara).

DICHÆNA Fr. — Syll. II p. 771, IX p. 1116. — Observante doct. Paoli (vide infra), sporidia etiam perfecte matura sunt continua, ovoidea hyalina, nec demum septata.

1. **Dichæna quercina** (Pers.) Fr. Elench., II, 141. — Syll. II, p. 771, Paoli App. N. G. B. J. 1905, p. 96, c. icone, ubi diagnosis reformata sequens: — Peritheciis primum immersis, dein erumpentibus, in maculas rotundatas ellipticas vel irregulares 0,5-2 cm. latas aggregatis, ellipticis vel elongatis, convexis, opacis, atris, subcarbonaceis, asperis, rima longitudinali angusta, dein, labiis tumidis dimotis, dehiscentibus, circiter 1 mm. long. $^2/_3$-$^1/_2$ mm. crassis; ascis clavatis vel lageniformibus, compressis, 80 × 26 × 15 subsessilibus 8-sporis; sporidiis oviformibus unicellularibus, primum endoplasmate granuloso, 1-guttulatis, hyalinis, tandem fuligineis 18-20 × 13; paraphysibus filiformibus simplicibus vel parce ramosis, septatis, articulis brevibus, epithecium distinctum non formantibus. 3100

Hab. ad corticem vivum lucidum juvenum Quercuum in Gallia, Italia, Germania. — Verisimiliter status pycnidici sunt *Psilospora Quercus* et *Dichænopsis Notarisii,* de quibus cfr. suo loc.

Sect. 2. Hyalodidymæ.

AULOGRAPHUM Lib. — Syll. II p. 727, IX p. 1101, XI p. 386, XIV p. 711, XVI p. 659.

1. **Aulographum juruanum** P. Henn. Fungi Amaz. III, p. 382 (1904) cum icone. — Peritheciis epiphyllis in maculis atris, rotundato-angulatis, gregariis, ellipsoideo-scutellatis, atris, rima longitudinaliter dehiscentibus, ca. 150–180 × 100–140 μ., radiato-cellulosis, margine hyphis septatis, fusco-brunneis, 3-4 μ. crassis circumdatis; ascis ovoideis, rotundatis, tunicatis, 8-sporis, 50-60 × 35-50; sporidiis conglobatis, ovoideis, submedio 1-septatis, constrictis, hyalinis, 25-30 × 10-14. 3101

   Hab. in foliis Rolliniæ spec., Juruá Miry, Rio Juruá, Amer. merid.

2. **Aulographum anaxæum** Sacc. et D. Sacc. Myc. ital. n. 1314. — Peritheciis hinc inde laxe gregariis, nigris, exiguis, ovatis oblongisve, convexulis, rimula longitudinali exaratis, 250–300 × 100, superficialibus, contextu tenui; ascis clavatis, brevissime stipitatis, apice rotundatis, 30-40 × 9-11, filiformi-paraphysatis, octosporis; sporidiis oblique monostichis v. distichis, tereti-clavatis, utrinque obtusis, 1-septatis, leviter constrictis, loculo infero angustiore, 2-guttatis, 9–10 × 4-4,5, hyalinis. 3102

   Hab. in foliis emortuis Caricis spec. ad flum. Piave (Anaxum), Narvesa (Treviso) Italiæ bor.

3. **Aulographum mugellanum** Paoli App. N. G. B. J. 1905, p. 100, c. icone. — Peritheciis punctiformibus, subiculo nullo, epi-et hypophyllis gregariis, parallelis, superficialibus, cuticula striata nigrificata tectis, dimidiatis, ovatis, rectis, simplicibus, utrinque obtusis, nitidulis, atris, membranaceis, rima superficiali angusta pertusis 300-350 × 120-140; ascis ovatis fuscidulo-tunicatis, 36-40 × 23-25, 8-sporis; sporidiis confertis, ovatis, episporio crasso, uniseptatis, loculis subæqualibus, endoplasmate chlorino non guttulato neque granuloso, 15–16 × 6; paraphysibus paucis, conglutinatis. 3103

   Hab. ad folia sicca Pini (silvestris?) S. Piero a Sieve in Mugello Etruriæ, Sept. 1904. — Ab *Aulogr. Pinorum* peritheciis minoribus magis applanatis etc. distinguitur.

4. **Aulographum quercinum** Ell. et Mart. deest in Sylloge, teste Rehm, Ann. Mycol. 1904, p. 354, sed revera adest sub nomine *Lembosiæ quercinæ* Tracy et Earle. — Syll. XIV, p. 714.

GLONIUM Mühl. — Syll. II p. 731, IX p. 1102, XI p. 386, XIV p. 711, XVI p. 661, 1144.

1. **Glonium Calatheæ** Rehm, Hedw. XLIV (1905). — Peritheciis gre- 3104
gariis, epiphyllis, sessilibus, linearibus v. trigonis, utrinque obtusis, rectis, rima longitudinali apertis, labiis medio distantibus, discum hyalinum denudantibus, atris, glabris, membranaceis, 0,3-0,5 mm. long. 90 μ. lat.; ascis ovoideis 35-40 × 15, octosporis; sporidiis fusiformibus, utrinque obtusis, 7-septatis, hyalinis 25 × 5-7; paraphysibus ramosis conglutinatis.

Hab. in foliis Calatheæ, Blumenau Brasiliæ (E. Ule). — Affine *Gloniellæ scriptæ,* sed disco brunneo et sporidiis minoribus 6-cellularibus diversum.

2. **Glonium microsporum** Sacc. — Syll. II, p. 736. — var. **america-** 3105
num Starb. in Arkiv. för Botan. 1904, II, pag. 8. — Peritheciis rarissime elongatis, sæpissime ellipticis v. fere globosis; sporidiis minoribus 7,5-9 × 3-4, plane interdum fere imbricatim monostichis a typo differt hæc varietas.

Hab. in truncis prope Zarate in delta fluminis Paranà Buenos Aires Argentinæ. — Huc ducendum *Glon. microsporum* Starb. in Ascomyceten der ersten Regnellschen Expedition I, in Bih. K. Sv. Vet.-Akad. Handl. Band 25 Afd. III p. 18.

3. **Glonium cypericola** P. Henn. in Hedw. 1903, p. (84). — Perithe- 3106
ciis sparsis oblongis, convexis, atris, ca. 0,5-0,7 mm. longis, rectis, anguste rimosis, labiis obtusis; ascis clavatis, apice obtusis, octosporis 25-35 × 5,5-7,5, paraphysibus filiformibus, hyalinis, 0,5 μ. cr.; sporidiis distichis, clavatis v. oblongis, obtusis, primo pluriguttulatis, dein medio 1-septatis, 5-7 × 2-2,5 hyalino-chlorinis.

Hab. in Cyperaceæ siccæ cujusdam sp., S. Queesland Australiæ (Pritzel).

CYCLOSCHIZON P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. XXVIII p. 39 (Etym. *cyclos* circulus et *schizo* findo). — Stromata membranacea, dimidiato-orbicularia, superficialia, atra, rima circulari tenuissima aperta. Asci ovoidei, paraphysati, octospori; sporidia subclavata, 1-septata, hyalina vel subfuscidula. *Parmulariæ* affinis.

1. **Cycloschizon Brachylænæ** (Rehm) P. Henn. Hedw. 1901, p. 173, 3107
Schneepia Brachylænæ Rehm Hedw. 1901, p. 173. — Stromatibus epiphyllis, gregariis, sæpe confluentibus, atris, glabris, haud nitentibus, dimidiatis, membranaceis, fusco-contextis, orbicularibus,

centro elevato-papillatis, rima circulari tenuissima 15 μ. lata, sæpe tenuiter albido-marginata, in sicco vix perspicua, centrifuge denique dilatata apertis, 250-300 μ. diam.; ascis ovoideis, sessilibus, apice valde incrassatis, 35-45 × 20, octosporis; sporidiis tristichis clavatis, 1-septatis, cellula sup. $^2/_3$ longiore, ad septum non constrictis, hyalinis, 12 × 5; paraphysibus filiformibus, septatis, 2 μ., apice 3 μ. cr. fuscidulis.

Hab. in foliis vivis Brachylænæ neriifoliæ ad Promont. Bonæ Spei Afric. austral. (Mac Owan).

Sect. 3. Phæodidymæ.

LEMBOSIA Lév. — Syll. II p. 741, IX p. 1104, XI p. 387, XIV p. 712, XVI p. 663.

1. **Lembosia Cactorum** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 186. — Maculis indefinitis; peritheciis sparsis, nigris, lucentibus, crassiusculis, v. subelevatis hysteriiformibus 200-250 × 100-150, apice obtusis, labiis conniventibus v. leviter apertis, subiculo ex hyphis confertis anastomosantibusque 2-4 μ. diam. composito; epithecio bene evoluto; ascis ovalibus 25-30 × 16-20 octosporis; sporidiis anguste ovatis, irregulariter dispositis, inæqualiter septatis, apice utrinque obtusis, hyalinis?, 12 × 4. 3108

   Hab. in Opuntia vulgari, Palma Sola, Fla., Amer. bor.

2. **Lembosia brevis** Tracy et Earle in Bull. of the Torr. bot. Club. 1901, p. 185. — Maculis irregularibus, brunneis 2-4 mm. diam.; peritheciis epiphyllis sparsis, nigris, crustiformibus, raro furcatis et subconfluentibus, brevissimis, apice obtusis 100-175 × 70-80, subiculo ex hyphis fuscis, simplicibus 10-20 × 2-3 composito; ascis ovalibus octosporis, circ. 20 × 16; sporidiis inordinatis, oblongis apice utrinque obtusis, 1-septatis, subhyalinis (immaturis?) 8-10 × 4. 3109

   Hab. in foliis vivis Ilicis spec., Longboat Key, Fla. Amer. borealis.

3. **Lembosia Albersii** P. Henn. Fungi Africæ orient. II, in Bot. Jahrb. XXVIII, p. 39. — Epiphylla gregaria, raro hypophylla, sparsa; peritheciis innato-superficialibus, subcarbonaceis in maculas orbiculares atras, subiculo radiante fibrilloso vel crustaceo circumdatis, plerumque gregariis, confluentibus, elongatis, atris, rima longitudinali dehiscentibus; ascis late clavatis, apice rotundatis, 3110

crasse tunicatis, 4-8-sporis, 45-90 × 20-30; paraphysibus filiformibus, obvallatis, apice incrassatis curvulis, fuscis 3,5-4; sporidiis subdistichis vel monostichis, ovoideis, medio 1-septatis, constrictis, fuscis dein atris, 20-30 × 10-12.

Hab. in foliis Elæodendri spec. Usambara (Albers).

4. **Lembosia huallagensis** P. Henn. Fungi Amaz. III, 1904, p. 382, cum icone. — Peritheciis epiphyllis sparsis in maculis effusis, fuscidulis, oblonge v. ellipsoideo-scutellatis, utrinque obtusis, rectis vel curvulis, 200-300 × 150-200 diam.; contextu radioso-celluloso fusco-brunneo, margine hyphis septatis, ramosis, hyphopodiis alternis, ovoideis ca. 10 × 5; ascis ovoideis vel late clavatis, apice rotundatis, 4-8-sporis, oblonge ellipsoideis, medio 1-septatis, constrictis, atris, 25-28 × 10-12. 3111

Hab. in foliis Sapindaceæ cujusdam, Huallaga, Perù.

5. **Lembosia Drymidis** Lév. — Syll. I, p. 743, Rehm Hedw. XLIV, (1904) p. 8. Forma typica dignoscitur. — Peritheciis semper trigonis in centro macularum orbicularium 5 mm. diam. arcte congregatis; ascis ovoideis, apice valde incrassatis, 40-45 × 25; sporidiis clavatis, 18-20 × 6-7, strato mucoso tenui obvolutis; paraphysibus ramosis, 2-3 μ. crassis.

Hab. quoque in foliis Drymidis chilensis, Concepcion, Chili (Doct. Neger).

6. **Lembosia Byrsonimæ** P. Henn. Fungi Amaz. II, p. 265. — Maculis epiphyllis atris suberustaceis, rotundatis vel effusis; peritheciis sparsis vel subgregariis, dimidiato-oblongis, radiato-cellulosis atris, hyphis ramosis, rufo-fuscis, ca. $3\,^1/_2$-4 μ. crassis, radiatim circumdatis, ca. 200 - 280 × 150, rima longitudinaliter exaratis; ascis subglobosis vel ovoideis 40-45 × 35, 4-sporis, paraphysatis; sporidiis conglobatis ovoideis vel ellipsoideis, utrinque obtusis, 1-septatis, constrictis, atro-brunneis, 22-30 × 13-14. 3112

Hab. in foliis Byrsonimæ spec., Manaos, Rio Negro Amazoniæ. — Ascis tetrasporis imprimis dignoscenda species.

7. **Lembosia manaosensis** P. Henn. Fungi Amaz. II, pag. 265. — Peritheciis epiphyllis, sparsis v. gregariis, vix maculosis, oblonge dimidiatis, utrinque subobtusis, rectis, ca. 300-400 × 200-250, contextu radiato-cellulosis, atris, hyphis radiantibus, septatis, ramosis, 3-5 μ. crassis, castaneis circumdantibus, longitudinaliter rimosis; ascis ovoideis, apice crasse tunicatis, 8-sporis, 55-65 × 45-50, paraphysibus apice conglutinatis; sporidiis allipsoideis, utrinque rotundatis, medio 1-septatis, valde constrictis, atris, 25-35 × 13-17. 3113

Hab. in foliis Malpighiaceæ cujusdam Manaos, Rio Negro Amazoniæ. — A *L. Byrsonimæ* ascis 8-sporis, maculis suberusta ceis subnullis mox distinguenda.

8. **Lembosia Sclerolobii** P. Henn. Fungi Amaz. III, p. 265. — Ma- 3114
culis epiphyllis, rotundatis vel confluentibus, atris; peritheciis sparsis vel gregariis oblongis, subfusoideo-dimidiatis, atris, utrinque subacutis rectis usque ad 1 mm. longis, ca. 140-180 μ. latis, rima longitudinaliter dehiscentibus, hyphis fuscis, 3-4 μ. crassis radiantibus; ascis ovoideis, apice crasse tunicatis, 35-50 × 30-40, 8-sporis; paraphysibus conglutinatis; sporidiis conglobatis oblongis, interdum clavatis, obtusis, medio 1-septatis, valde constrictis, atrobrunneis, 17-23 × 6-9.

Hab. in foliis coriaceis Sclerolobii bracteosi, Marmellos, Rio Madeira Amazoniæ.

9. **Lembosia Warscewicziæ** P. Henn. Fungi Amaz. II, pag. 264. — 3115
Maculis rotundatis, atris; peritheciis gregariis, plerumque circulariter dispositis, simplicibus vel substellato-ramosis, linearibus, rectis vel flexuosis, ca. 1-1½ mm. longis, 180-200 μ. latis, utrinque acutiusculis, hyphis fuscis radiantibus circumdatis, rima angusta longitudinaliter dehiscentibus; ascis ovoideis vel subclavatis, vertice rotundato-incrassatis, 8-sporis, 50-60 × 25-30, paraphysibus hyalinis, filiformibus, apice conglutinatis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis constrictis, primo hyalinis, dein atris, 20-26 × 10-13.

Hab. in foliis Warscewicziæ coccineæ, Manaos, Rio Negro Amazoniæ.

10. **Lembosia diffusa** Wint. — Syll. IX, p. 1106. — var. **hypophylla** 3116
Syd. Ann. Mycol. 1904, p. 162. — A typo præcipue differt peritheciis hypophyllis, maculis purpureo-fuscis carentibus; ascis 42-55 × 30-35; sporidiis octonis, hyalinis, dein brunneis, medio valde constrictis, 22-27 × 9-11.

Hab. in foliis Posoqueriæ latifoliæ in Brasilia (Sello). — *Lemb. diffusa* Wint. var. *breviuscula* Penz. et Sacc., observante cl. Sydow l. c., specifice est distinguenda nomine *L. breviuscula* (Penz. et Sacc.) Syd.

11. **Lembosia Cassupæ** P. Henn. Fungi Amaz. IV, Hedw. XLIV, 3117
1905, p. 67. — Maculis mycelii epiphyllis, angulato-rotundatis sparsis, atris vel subobsoletis; peritheciis gregariis, oblonge fusoideis interdum substellatis, atris, longitudinaliter rima erumpentibus, 400-500 μ. longis, rectis, 200-250 μ. latis, contextu radiato-cellu-

loso, margine hyphis repentibus atro-fuscis circumdatis, hyphopodiis alternis, ovoideis vel corniformibus, atro-brunneis 8 × 5 vel 15 × 5-6; conidiis fusoideis vel subclavatis, 1-4-septatis, 15-20 × 4; ascis ovoideis, apice crasse tunicatis, 8-sporis, paraphysatis, 40-60 × 30-40; sporidiis conglobatis, ellipsoideis v. subovoideis, medio 1-septatis, valde constrictis, atris, intus granulatis, 20-28 × 10-14.

Hab. in foliis Cassupæ juruanæ, Rio Juruá Amazoniæ.

12. **Lembosia parmularioides** P. Henn. Fungi Amaz. II, p. 265, c. ic. — 3118
Maculis nullis; peritheciis epiphyllis gregariis variiformibus, stellatim conexis, interdum parmularioideis, 0,5-3 mm. diam., ramulis oblongis substriiformibus apice subobtusis, convexis, longitudinaliter rima dehiscentibus, hyphis fuscidulis circumdatis, contextu atro, submembranaceo, radiato; ascis ovoideis, apice crasse tunicatis, 8-sporis, 35-50 × 20-26; paraphysibus apice ramosis, fuscidulis, conglutinatis; sporidiis conglobatis, ellipsoideis, utrinque rotundatis, medio 1-septatis, constrictis, atro-fuscis, 14-21 × 8-9.

Hab. in foliis Apocynaceæ cujusdam Juruá Miry Amazoniæ. — Pulcherrima species peritheciis stellatim connexis distincta et ad *Parmulariam* nutans, sed hypostroma nullum.

13. **Lembosia lophiostomacea** Starb. in Arkiv f. Botan. 1904, II, 3119
pag. 8, fig. 16-18. — Mycelio hyphis 3-6 μ. cr., valde flexuosis, hinc inde nodulosis vel rugosis, anastomosantibus, fuscis, composito, maculas nigricantes, orbiculares, interdum confluentes, pro ratione distincte determinatas formante, 2-6 mm. diam.; peritheciis sine ordine aggregatis, solitariis vel nonnullis confluentibus, polymorphis, plerumque ambitu elliptico, sæpe rotundato vel fere anguloso, dimidiatis, margine fimbriato, fibrillis in mycelium repens transeuntibus, linea media, primo depressiuscule elata, demum rimosim, interdum laceratim dehiscentibus, textura membranacea, 200-300 × 125-200; ascis ovatis vel sphæroideis, sessilibus v. late et brevissime pedicellatis, 16-19 × 20-32; sporidiis octonis, 1-septatis superne rhomboideis vel ellipsoideis, inferne cylindraceis, basi truncatis, apice rotundatis, 12-17 × 5,5-6; paraphysibus nullis; conidiis aterrimis ex hyphis marginalibus orientibus, septatis, loculis mediis fuscis, impellucidis, apicalibus, sursum uno, deorsum plerumque duobus pallidioribus 19-25 × 10-25.

Hab. ad folia in silvula riparia fluvii Riacho Mbope, Paraguay. — Peritheciorum forma, sporidiis et conidiis, ut videtur, prædistincta species.

14. **Lembosia Cocoës** Rehm, Hedw. XLIV (1905) p. 8, *Lembosia Dry-* 3120

midis Lév. et Auct. p. p. — Peritheciis in centro macularum fuscarum irregulariter suborbicularium vel oblongarum marginem versus dilutiorum, ex mycelio hypharum rectangulariter ramosarum septatarum fuscarum 3-4 μ. lat. compositarum 0,5-1 cm. diam. sessilibus, linearibus, rarius subcurvatis utrinque acutatis, dispersis, sæpe centrifuge e centro radiantibus, atris, 900-1000 × 150; labiis arcte juxta positis; ascis ovoideis 50-55 × 25-28, octosporis; sporidiis clavatis 20-25 × 9-10, medio septatis; paraphysibus ramosis 2 μ. cr.

Hab. in foliis Cocoës cryospathæ Laguna, St. Catharina Brasiliæ (E. Ule). — A *Lembosia Drymidis* peritheciorum forma omnino diversa.

15. **Lembosia Diplothemii** P. Henn. Hedw. 1904, p. 89. — Mycelio 3121
maculiformi rufo-brunneolo effuso; peritheciis sparsis vel aggregatis, linearibus rectis vel curvulis, obtusis, interdum substellato-confluentibus, usque ad 1 mm. longis, atris, rima longitudinaliter vix conspicua dehiscentibus, basi hyphis radiantibus septatis, circumdatis; ascis oblonge ovoideis vel subclavatis, apice tunicato-incrassatis, rotundatis, octosporis, 30-42 × 16-24; paraphysibus copiosis, in epithecium atro-fuscum confluentibus; sporidiis oblonge fusoideis, subcurvulis, utrinque subacutiusculis, medio 1-septatis, constrictis, interdum dilabentibus, 15-20 × 4-6, hyalino-subfuscidulis.

Hab. in petiolis foliorum Diplothemii maritimi, Mauá Rio de Janeiro Brasiliæ (E. Ule).

16. **Lembosia Philodendri** P. Henn. in Hedw. 1904, p. 89. — Macu- 3122
lis obsoletis; peritheciis subcirculariter dispositis, linearibus, rectis vel subcurvulis, obtusis, usque ad 1 mm. longis, ca. 200-250 μ. latis, atris; hyphis radiantibus ramosis, ca. 3-4 μ. crassis, fuscis circumdatis, longitudinaliter rima ca. 30-40 μ. lata dehiscentibus; ascis oblonge ovoideis, apice crasse tunicatis, octosporis, ca. 25-40 × 15-20; sporidiis conglobatis, oblonge fusoideis vel subclavatis, obtusiusculis, hyalinis, submedio 1-septatis, constrictis, 14-20 × 3, 5-4,5.

Hab. in foliis Philodendri, Tijuca, Rio de Janeiro Brasiliæ (E. Ule).

17. **Lembosia Agaves** Earle in Muhlenbergia 1901, p. 15. — Macu- 3123
lis crebre sparsis, atratis, leviter elevatis, 1-3 mm. diam.; mycelii hyphis tenuibus, brunneis, anastomosantibus, diffusis; peritheciis sparsis v. confertis non confluentibus, irregulariter ovoideis utrin-

que obtusis, rectis, firmulis et carbonaceis 200-500 × 80-100; labiis arcte adpressis; ascis late ovoideis, tenui-tunicatis, 30-40 × 20-25; sporidiis inordinatis, ovoideis, 1-septatis, constrictis, cellula altera globosa, altera acutiuscula, demum late brunneis, 14-16 × 6-7.

Hab. in foliis Agaves, prope Carboroio, Portorico. — Subiculum circa perithecia parcum, ex hyphis rigidulis, fuscis, anastomosantibus constans.

DIELSIELLA P. Henn. in Hedw. 1903, p. (84) (Etym. a cl. L. Diels cui dicatum). — Perithecia erumpenti-superficialia carbonaceo-atra, convexo-pulvinata vel scutellata, medio depressa papillata, rima subcirculari dehiscentia. Asci ovoidei vel clavati, 4-8-spori, copiose paraphysati; sporidia ellipsoidea, 1-septata, atro-fusca. — *Tryblidio, Lembosiæ* et *Cycloschizo* affinis.

1. **Dielsiella Pritzelii** P. Henn. l. c. p. (84). — Peritheciis amphigenis, erumpenti-superficialibus, plerumque cæspitosis, convexo-depressis vel scutellatis, fragilibus, atro-carbonaceis, subiculo fibrilloso; hyphis atris septatis ca. 4,5 μ. crassis circumdatis, medio papillatis, rima subcirculari-dehiscentibus, 0,5-1 mm. diam.; ascis ovoideis v. clavatis, apice rotundatis, tunicatis, 4-8-sporis, 60-120 × 25-50; paraphysibus copiosis filiformibus, septatis, guttulatis, hyalino-fuscidulis, apice clavatis 3-4 μ. cr.; sporidiis subdistichis vel subtristichis, oblongo ellipsoideis, subfusoideis vel ovoideis, medio 1-septatis, constrictis, atro-fuscis, 36-46 × 15-24. 3124

Hab. in foliis Agathidis Palmerstonii pr. flum. Barron, N. Queensland Australiæ (L. Diels et Pritzel).

BULLIARDELLA Sacc. — Syll. II p. 764 (ut subgen.) (Etym. a summo mycologiæ magistro Bulliard). — A *Mytilidio* dignoscitur sporidiis didymis (pariter fusco-olivaceis) nec pluriseptatis.

1. **Bulliardella Baccarinii** Paoli App. N. G. B. J. 1905, p. 101, c. ic. — Peritheciis minutis, sparsis vel subgregariis, undique versis, mytiliformibus vel obverse cymbiformibus, utrinque acutis, carinatis, longitudinaliter tenuissime striatis, subnitentibus, atris, fragilibus, rima longitudinali angustissima, labiis acutis arcte conniventibus, circiter $^3/_4$-1 mm. long., $^1/_4$-$^1/_3$ mm. crassis; ascis cylindraceis, subsessilibus, tenuiter tunicatis 100 × 7-8, 8-sporis; sporidiis recte vel oblique monostichis, fusoideis, utrinque plus minusve acutatis, interdum etiam obtusis, pallide olivaceis, 1-septatis, ad 3125

septum non constrictis, 17-19 × 4-4 1/2; paraphysibus paucis filiformibus, parce ramosis.

Hab. in cortice Thujæ, S. Marcello Etruriæ (O. Beccari, 1862).

Sect. 4. Hyalophragmiæ.

GLONIELLA Sacc. — Syll. II p. 765, IX p. 1112, XI p. 388, XIV p. 717, XVI p. 666.

1. **Gloniella Ingæ** Rehm in Hedw. 1903, pag. (172). — Peritheciis 3126
gregariis, sessilibus, orbicularibus vel plerumque linearibus, rectis, obtusis, glabris, atris, rima longitudinali vix perspicua percursis, 0,2-0,8 × 0,2-0,3 mm. carbonaceis; ascis cylindraceo-clavatis, apice rotundatis 60-65 × 7-8 μ., octosporis; sporidiis subfusiformibus, rectis, 3-septatis, cellula secunda latiori, ad septa vix constrictis, hyalinis, 9 × 3, distichis; paraphysibus filiformibus, apice subcurvatis, hyalinis 2 μ. cr.

Hab. in leguminibus putridis Ingæ, Theresiopell Brasiliæ (v. Höhnel).

2. **Gloniella comma** (Ach.) Rehm, Hedwigia 1903, p. (172) *Opegrapha* 3127
comma Ach. Syn. meth. p. 73. — Peritheciis in maculis corticis nivois, longe extensis dispersis, sessilibus, lineariformibus, rectis v. subcurvatis interdum trigonis, obtusis, glabris, nigris, rarissime confluentibus, rima longitudinali tenuissima percursa, carbonaceis 0,5-1 mm. long., 0,1-0,15 mm. latis; ascis clavatis, apice rotundatis, in stipitem tenuem angustatis, 50-60 × 15, octosporis; sporidiis fusiformibus, rectis, utrinque acutatis, transverse 11-septatis, hyalinis, demum subfuscidulis, 30 × 6, parallele positis; paraphysibus ramosis, apice fuscescentibus, itaque epithecium formantibus; hymenio Jodii ope cærulee tincto.

Hab. in corticibus Crotonis Cascarillæ venalis (Dr. Rehm).

3. **Gloniella chinincola** Rehm in Hedw. 1903, p. (172). — Perithe- 3128
ciis dispersis, sessilibus, lineariformibus, rectis vel subcurvatis, obtusis, glabris, atris, rima angustissima percursis, 0,2-1 mm. longis, 0,1-0,15 mm. latis, carbonaceis; ascis oblongis, apice rotundatis, 60-65 × 12, octosporis; sporidiis subclavatis, rectis, transverse 7-septatis, quaque cellula 1-2 guttas magnas oleosas includente, ad septa subconstrictis, dilute fuscidulis 24 μ. long., apice sup. 7 μ. latis, distichis; paraphysibus filiformibus apice rotundato-clavatis, 4 μ. latis et fuscidulis, epithecium fuscum formantibus.

Hab. ad corticem Cinchonæ vulgo dictæ *Chinæ regiæ* venalis (Dr. Rehm).

4. **Gloniella Pentastemonis** Earle in New York Bot. Gard. 1902, p. 346. — Peritheciis ex matrice nigrificata erumpenti-superficialibus, in cortice basi immersis, sparsis vel gregariis, plus minusve curvatis, utrinque acutis, intense nigris, non striatis, 1-1,5 × 0,5 mm.; ascis clavatis 60-70 × 8-10; paraphysibus filiformibus, septatis, epithecium brunneolum efformantibus; sporidiis oblique monostichis, hyalinis, subovatis, maturitate 3-septatis, paullo constrictis 15-18 × 6-7. 3129

Hab. in caulibus emortuis Pentastemonis speciei cultæ, Stanford University Californiæ (C. F. Baker).

5. **Gloniella sardoa** Sacc. et Trav. in Annal. Mycol. 1903, pag. 435, fig. IV. — Peritheciis hinc inde gregariis, anguste ellipsoideis, 0,5-0,8 mm. longis, 0,3-0,4 mm. latis, basi ligno infossis, nigrescentibus; ascis octosporis, ovato-clavatis, superne attenuatis, 50-60 × 13-15; paraphysibus apice clavatis, in materiam brunneam concretis; sporidiis cylindraceo-curvulis, utrinque rotundato-obtusis, 6-7-septatis, hyalinis, 16-18 × 6. 3130

Hab. in ligno denudato Populi albæ, prope Sassari Sardiniæ (A. N. Berlese).

6. **Gloniella pseudocomma** Rehm in Hedw. 1903, p. (172). — Ascomatibus in cortice longe dealbato gregarie sessilibus, lineariformibus, plerumque obtusis, interdum subacutatis, rectis v. subcurvatis, rarissime trigonis v. stelliformibus, glabris, atris, rima angusta, medio dehiscente percursis, 0-3-1,5 mm. long., 0,15-0,2 mm. latis, carbonaceis; ascis clavatis, crasse tunicatis, apice rotundatis, 65-70 × 20, octosporis; sporidiis fusoideis, rectis, transverse 3-7-septatis, hyalinis, demique flavidulis, 25 × 7-8, distichis; paraphysibus apice ramosis, crassioribus atque fuscidulis. 3131

Hab. ad cortices, in Nova Zelandia (Dr. Schimper).

7. **Gloniella Xerotis** P. Henn. Fungi Austral. II, p. 187. — Peritheciis erumpenti-innatis, oblongis, substriiformibus, subcarbonaceis, rima longitudinaliter dehiscentibus, atris, 0,3-0,4 mm. longis, ascis cylindraceis vix stipitatis, obtusis, 8-sporis, 100-120 × 8-12; paraphysibus filiformibus, hyalinis; sporidiis oblique monostichis, fusoideis, crasse tunicatis, 3-septatis, constrictis, hyalinis, 16-22 × 6-7. 3132

Hab. in foliis dejectis Xerotis Drummondii, Swan-River, Australiæ orient. (L. Diels).

8. **Gloniella scripta** P. Henn. Hedw. 1904, p. 90. — Maculis cinereo- 3133

fuscidulis effusis; peritheciis gregariis variiformibus, lineatis, rectis vel curvulis, stellulatis, usque ad $1^1/_2$ mm. longis, atris, rima tenuissima percursis; ascis ovoideis vel subclavatis apice rotundatis, octosporis 35-40 × 14-20; paraphysibus in epithecium fuscum confluentibus; sporidiis oblongo-fusoideis, rectis v. curvatis, utrinque acutis, 5-septatis, paullo constrictis, hyalinis, 15-20 × 4-5.

Hab. in foliis Pothoes spec., Gavea, Rio de Janeiro Brasiliæ (E. Ule).

9. **Gloniella graphidioidea** Rehm, Hedw. 1903, p. (290). — Perithecis 3134
in cortice longe lateque dealbatis, sessilibus, lineariformibus, utrinque subobtusis, rectis, serius curvatulis, interdum trigonis, rima longitudinali percursis, labiis demum subdistantibus et discum nigrum 100 μ. lat. denudantibus, 0,5-2-3 mm. long., 0,1,5-0,2 mm. lat. nigris, glabris, carbonaceis; ascis elongato-ovoideis, apice rotundatis, sessilibus, 50-60 × 15 octosporis; paraphysibus subramosis 2 μ. cr., apice 4 μ. cr. et fuscis; sporidiis ellipsoideis, 5-septatis, strato mucoso tenui obductis, hyalinis 15-18 × 5-6, 2-3-stichis.

Hab. in stipitibus siccis Pteridis aquilinæ, Côte de Normantier, Vendée Galliæ (Doct. Viand Marais).

PSEUDOGRAPHIS Nyll. — Syll. II p. 769, IX p. 1116, XIV p. 717.

1. **Pseudographis Mahoniæ** Feltg. Vorst. Pilz. Luxemb. 1903, Nachtr. 3135
III, p. 99. — Perithecis gregariis, innato-erumpentibus, demum subliberis, rotundis vel oblongis, 300-500 μ. lat., extus brunneis, siccis atro-brunneis, disco concaviusculo, udo subolivaceo-brunneo, margine tenuiter denticulato; ascis clavatis, longiuscule stipitatis, 70-100 × 11-16, p. spor. 55-68 μ. long., octosporis; sporidiis inordinatis, 1-2-stichis, oblongo-fusoideis, utrinque obtusis, rectis curvulisve, 2-4-cellularibus, non constrictis, sæpe pluri-guttulatis, 21-27 × 5,5-6; paraphysibus filiformibus, paullo superantibus, ramulosis, supra 3-4 μ. lat., flavo-brunneis.

Hab. in ramis decorticatis, putridis Mahoniæ spec. Luxemburg.

2. **Pseudographis hysterioides** Feltg. Vorstud. Pilz. Luxemb. 1903, 3136
Nachtr. III, p. 99. — Perithecis gregariis sessilibus, basi interdum annulo tenui piloso cinctis, ellipticis, utrinque obtusis, raro subrotundis, rima recta v. curvula margine erosa dehiscentibus, 500-1000 × 500, extus brunneo-nigris, pruinoso-rugulosis, disco oblongo-elliptico plano convexulo, concolore; ascis clavatis, longiuscule stipitatis 70-80 × 10-11,5, octosporis; paraphysibus septa-

tis, sursum ramosis et uncinatis, obtusulis, subinde conidia 3-5-septata, oblongo-elliptica gerentibus; sporidiis distichis, elliptico-fusoideis, obtusis, rectis vel curvulis, 3-septatis, non v. vix constrictis, rarius 1-2-cellularibus, hyalinis v. ex hyalino flavidis, 16-21 × 5-6, interdum hinc vel utrinque breve appendiculatis.

Hab. in cortice et in ligno Gleditschiæ Triacanthi, Luxemburg. — *Ps. buxicolæ* affinis.

3. **Pseudographis? Icerbæ** P. Henn. in Hedw. 1903, pag. (85). — 3137
Peritheciis erumpenti-superficialibus, difformibus, subhemisphærico-depressis v. oblongo-curvatis, atro-carbonaceis, ca. 1-1,5 mm. longis, rima longitudinaliter exaratis; ascis cylindraceo-clavatis, apice obtuse rotundatis, octosporis ca. 140 × 6-8; paraphysibus filiformibus, hyalinis, ca. 2,5 μ. diam.; sporidiis oblique monostichis, fusoideis, utrinque subacutiusculis, pluriseptatis, 25 × 5-6, hyalino-fuscidulis.

Hab. in caulibus Icerbæ brexioidis, Neu-Seeland Australiæ (L. Diels).

4. **Pseudographis Cocoës** P. Henn. Fungi S. Paulenses I, in Hedw. 3138
1902, p. 111. — Maculis atro-rufis v. pallescentibus, exaridis, rotundatis; peritheciis epiphyllis sparsis v. gregariis, sæpe nervos sequentibus, innato-erumpentibus, oblonge rotundatis, fuscis, longitudinaliter rimosis, subcupulatis 150-200 μ. diam.; ascis oblonge ovoideis, apice obtusis, octosporis 20-30 × 15-17; paraphysibus superne ramosis; sporidiis conglobatis, ellipsoideis v. oblonge ovoideis, 4-septatis, haud constrictis, hyalinis, 9-13 × 3,5-4.

Hab. in foliis Cocoës Romanzoffianæ, in horto botanico S. Paulo Brasiliæ.

PHRAGMOGRAPHUM P. Henn. Fungi Amaz IV in Hedw. 1905, p. 68, cum icone (Etym. *phragma* septum, quasi *Aulographum* hyalophragmium). — Perithecia superficialia, sublinearia, simplicia vel ramulosa, rima longitudinali dehiscentia, submembranacea, atra. Asci subovoidei, clavati, 8-spori, aparaphysati; sporidia longe fusoidea, pluriseptata, basi subrostrata, hyalina *Aulographo* affin. sed sporidia pluriseptata.

1. **Phragmographum Bactridis** P. Henn. l. c. cum icone. — Maculis 3139
epiphyllis, effusis, fuscidulis vel obsoletis; peritheciis gregariis superficialibus, linearibus, rectis vel curvulis, sæpe stellato-ramosis, ca. 1 mm. longis, ca. 150-200 μ. latis, rima longitudinaliter dehiscentibus, atro-cellulosis; ascis subovoideis vel clavatis, apice

rotundato-tunicatis, 8-sporis, paraphysatis, 35-60 × 18-22 μ.; sporidiis subtristichis vel conglobatis, fusoideis, flexuosis apice rotundatis vel acutiusculis, basi subcurvato-rostratis, 4-5-septatis, constrictis, hyalinis, 25-30 × 4.

Hab. in foliis Bactridis sp. pr. Rio de Janeiro Brasiliæ.

Sect. 5. Phæophragmiæ.

HYSTERIUM Tode em. — Syll. II p. 743, IX p. 1108, XI p. 387, XIV p. 715, XVI p. 664.

1. **Hysterium compressum** Ell. et Ev. in Journ. of Mycol. 1902, p. 69. — Peritheciis sparsis, medio rima longitudinali percursis, 1-3 mm. long. 0,5 mm. lat., linearibus vel undulatis curvulisve, apice utrinque obtusis, labiis clausis v. leviter apertis; ascis oblongo-cylindraceis, breve stipitatis 75-80 × 15-20, sursum incrassatis; paraphysibus filiformibus, permultis; sporidiis di-tri-stichis, fusoideis, 3-septatis, parce constrictis, hyalinis dein fuligineo-brunneis, subinæquilateralibus, curvulis, compressis, 25-30 × 7-10. 3140

Hab. in ligno emortuo Pini palustris, Alabama Americæ. — Ab *H. insidente* differt sporidiis semper 3-septatis et distincte compressis, e latere tantum 4-5 μ. cr.

2. **Hysterium vermiforme** Massee in Kew. Bull. 1901, pag. 166. — Peritheciis superficialibus, gregariis, atris, carbonaceis, lineari-elongatis seu vermiformibus, utrinque acutiusculis, medio rima longitudinali percursis, 2-4 mm. longis, 0,5 mm. latis, transverse striatulis; ascis cylindraceis apice truncato-rotundatis, octosporis; paraphysibus filiformibus; sporidiis monostichis, cylindraceo-ellipsoideis, utrinque obtusiusculis, triseptato-constrictis, brunneis, 35-40 × 12-14. 3141

Hab. in ramis corticatis in horto botanico, Aburi, Gold Coast Africæ occident. — *Hyst. eumorpho* Sacc. affine.

3. **Hysterium angustatum** Alb. et Schw. — Syll. II, pag. 746. — var. **Ceratoniæ** Roll. Bull. Soc. Mycol. 1905, p. 29. — Peritheciis coriaceis, atro-nitidis, dense gregariis, usque ad 2,5 × 0,2-0,5 mm.; ascis spurie paraphysatis, 60-90 × 8-10, clavato-oblongis; sporidiis elliptico-fusoideis, utrinque rotundatis, 3-septatis, ad septa constrictis, 12-15 × 4-6, rarius usque 18 μ. long., æqualiter subluteo-fuscidulis, loculis æqualibus, 1-guttatis. 3142

Hab. in ligno vetusto Ceratoniæ Siliquæ Sa Coma, Soller

ins. Balearium. — A typo ascis sporidiisque paullo minoribus, habitu et matrice dignoscitur.

TRYBLIDIELLA Sacc. — Syll. II p. 757, IX p. 1110, XI p. 388, XVI p. 665.

1. **Tryblidiella irregularis** Starb. in Arkiv. för Botan. 1904, Band 2, 3143
p. 5. — Peritheciis dense gregariis, interdum crustam fere formantibus, superficialibus, vix erumpentibus variiformibus v. elongatis, rectis vel flexuosis, rarius ellipsoideis, rarissime rotundatis, plerumque stellatim vel aliter partitis, interdum polygonis, apicibus acutiuscule rotundatis, glabris, non striatis, primo labiis arcte connexis clausis, deinde latiuscule apertis, aterrimis, textura molliter coriacea, 0,5-1 mm. longis, 100-150 μ. latis; ascis clavatis, deorsum breviter pedicellatis, sursum rotundatis incrassatulis, octosporis, 65-75 × 12-15; sporidiis distichis, inferne monostichis, oblongo-ellipsoideis vel plerumque ovoideis, triseptatis, utrinque loculo guttula una majore præditis, vix ad septa constrictis, primo hyalinis, denique fuliginea 16,5-18 × 6-7,5; paraphysibus filiformibus, hyalinis, partitis, continuis 1-2 μ. crassis; epithecio ex massa granulosa, atra formato.

Hab. in truncis in delta fluminis Paranà prope Zarate, Buenos Aires Argentinæ. — *T. Steigeri* affinis, sed multo minor.

MYTILIDIUM Duby — Syll. II p. 760, IX p. 1111.

1. **Mytilidium Thujæ** Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 3144
1903, p. 112. — Peritheciis sparsis vel gregariis, basi angustata sessilibus, navicularibus, rectis vel curvulis, acutis vel obtusis, tota longitudine rima angusta dehiscentibus, extus glabris et nitidulis, nigris, 300-1200 × 300-400; ascis cylindraceis, longiuscule stipitatis, 90-105 × 5,5-7, filiformi-paraphysatis, 6-8-sporis; sporidiis 1-2-stichis, longe demum 5-7-septatis, non v. vix constrictis, pallide flavo-brunneis, minute guttulatis, 22-30 × 2,5-3.

Hab. in cortice vetusto Thujæ orientalis, Luxemburg. — Ascis sporidiisque perangustis mox dignoscenda species.

HYPODERMOPSIS Earle in New York Bot. Gard. 1902, p. 345 (Etym. ab *Hypodermate*, cui affinis). — Perithecia elongata, nigra, minuta, epidermide velata, ut in *Hypodermate;* sporidia ellipsoidea-fusoidea brunnea, bi- vel pluri-septata. — Gen. intermedium inter *Dermateaceas* et *Hysteriaceas*.

1. **Hypodermopsis Sequoiæ** Earle in New York Bot. Gard. 1902, 3145
p 345. — Peritheciis sparsis, late ellipticis vel subangularibus, prominentibus, convexis, epidermide velatis, subellipticis vel undulatis, rima subprominula dehiscentibus vel anguste subclausis 750-1000 × 500-750 μ.; ascis subcylindraceis 70-75 × 8-10; paraphysibus filiformibus epithecium vix distintum formantibus; sporidiis distichis, fusoideis, olivaceis 3-septatis, non constrictis, 18 × 6.

Hab. in ramulis Sequoiæ sempervirentis, Coast Range, prope Stanford University Californiæ.

Sect. 6. Hyalodictyæ.

HYSTEROPSIS Rehm — Syll. IX p. 1118.

1. **Hysteropsis laricina** v. Höhnel Fragm. zur Mykologie 1903, p. 11. 3146
— Peritheciis sparsis, sub epidermide matricis atrocæruleo-æruginosa innatis, rotundatis v. oblongis, 300-500 μ. longis 300-400 μ. latis, applanatis 120-130 μ. crassis, ostiolo rimoso, rima c. 100 μ. longa et ca. 50 μ. lata, marginibus acutis; tunica carnosa, tenui, supra crassiore, cæruleo-æruginosa; ascis clavatis, membrana subcrassa, 100-120 × 14-16; sporidiis mono-vel subdistichis, ovalibus vel oblongis, hyalinis, transverse 3-7-septatis, longitudinaliter 1-4-septatis, muco destitutis, 18-19 × 10-12; paraphysibus numerosis, supra valde ramosis, filiformibus, 1-5 μ. crassis, ascos valde superantibus, apice in capitula elliptica, 2,5 μ. lata incrassatis.

Hab. in ramulis dejectis novellis, sed jam lignosis et epidermide adhuc tectis Laricis europææ, loco « Kaltenbachgraben » dicto prope Spital Styriæ superioris et prope Welsberg Tiroliæ.

2. **Hysteropsis larigna** (Lamb. et Fautr.) v. Höhnel, Fragm. zur Mykol. p. 12. Ita vocanda est *Gloniopsis larigna* Lamb. et Fautr. — Syll. XIV, p. 718. — Huic enim, teste v. Höhn. l. c., sunt perithecia 200-300 × 200 applanata, epidermide velata; asci ovoideo-piriformes 32-52 × 14-24, 8-spori, paraphysibus ramosis obvallati; sporidia oblongo-ellipsoidea, 3-4-septata septulisque 1-2 longitrorsum divisa, hyalina, 14-18 × 5-6.

GLONIOPSIS De Not. — Syll. II p. 772, IX p. 1116, XIV p. 717.

I. *Eu-Gloniopsis* Paoli. Perithecia completa.

1. **Gloniopsis curvata** (Fr.) Sacc. — Syll. II, p. 775, Paoli in App.

N. G. B. I. 1905, p. 113, *Hysterium elongatum* β *curvatum* Fries, Syst. Myc., II, p. 138; *Hysterium curvum* Fr. « in litt. »; *Hysterium curvatum* (Fr.) Duby. — Peritheciis subparallele aggregatis, elongato-linearibus, utrinque obtusiusculis, levibus, opacis vel nitidulis, atris, carbonaceis, rima longitudinali angusta, labiis vix inflexis, dein dimotis latiuscula, 2-2 $^1/_2$ mm. lat., 0,5-0,7 mm. crassis; ascis cylindraceo-clavatis, sessilibus 75-80 × 14-15, 8-sporis; sporidiis distichis vel subdistichis, medio constrictis, utrinque obtusis 4-5-septatis, loculis nonnullis 1-2 septulis longitudinalibus divisis, septis omnibus tenuibus, 14-15 × 6-7; paraphysibus ramosis epithecium luteolum formantibus (Paoli l. c.)

Hab. ad ramos Rosæ caninæ in Gallia (Mougeot ex herb. Fries).

2. **Gloniopsis levantica** Rehm — Sacc. Syll. IX, p. 1118, D. Sacc. in Staz. Sperim. Agrar. ital. 1904, p. 63, *Hysterium curvatum* Plur. Auct. nec Fries (teste Paoli). — Peritheciis subsuperficialibus, congestis v. subsparsis, sessilibus, lineari-elongatis 600 × 200, atris, striatis, initio clausis dein in rimam angustam linearem hiantibus; ascis clavatis, crassis, 90-100 × 15-18, fere sessilibus, octosporis; sporidiis distichis vel subdistichis, interdum muco obvolutis, loculo superiore crassiore, ellipsoideis, pluriguttulatis dein maturitate 5-6-septatis, muriformibus, 18-25 × 7-9 hyalinis vel pallidissime luteolis; paraphysibus tenuibus granuloso-farctis, sursum interdum ramosis.

Hab. in sarmentis emortuis Rubi, Acque albule, Romæ et in Britannia.

3. **Gloniopsis ilicicola** (Feltg.) Sacc. et D. Sacc. *Hysterographium ilicicolum* Feltg. Vorstud. Pilz. Luxemb. Nachtr. III, 1903, p. 110. — Peritheciis gregariis, ligno denigrato basi insculptis, oblongo-ellipticis, utrinque rotundatis, rectis curvulisve, subparallelis, rima latiuscula apertis et crassiuscule marginatis, opace nigris, non striatis, 500-1000 × 200-300; ascis crasse clavatis, breviuscule stipitatis 60-80 × 20-22, octosporis; sporidiis distichis, obc to-ellipticis, rectis, 5-septatis, medio constrictis, cellulis mediis longitrorsum partitis, ex hyalino flavidulis minute guttulatis 16-19 × 9-10.

Hab. in ramis decorticatis Ilicis Aquifolii, Luxemburg. — Affinis *Gloniopsi Loniceræ*.

4. **Gloniopsis argentinensis** Speg. Myc. Argent. ser. II, 1902, p. 74. 3147
— Maculis candidis, ellipticis 15-60 mm. long. 5-20 mm. diam.;

peritheciis inter fibrillas ligni dealbati ex erumpenti-superficialibus, semifusoideis, subcarbonaceis, 1-2 mm. long. 0,4-0,6 mm. lat., glabris, contextu atro, opaco, indistincto; ascis cylindraceis, apice obtusissime rotundatis, basi brevissime cuneato-pedicellatis 150-200 μ. long. 18-20 μ. cr.; paraphysibus filiformibus parum numerosis, longioribus; sporidiis recte vel oblique monostichis utrinque obtusiusculis 30 × 15, 7-septatis, ad septum medium validius ad cetera leniter constrictis, loculis sæpius 3-4-guttulatis, hyalinis. Membrana ascorum jodi ope tenuiter cærulescit.

Hab. ad palos decorticatos vetustos Eucalypti globuli, La Plata, in Argentina.

5. **Gloniopsis regia** Rehm in Hedw. 1903, p. (173). — Ascomatibus 3148
dispersis, sessilibus, lineariformibus, rectis, rarissime subcurvatis, utrinque obtusis, glabris, atris, rima angustissima, medio interdum subdehiscente percursa, 1-2 mm. longis, 0,2-0,3 mm. lat. carbonaceis; ascis ovalibus, sessilibus, 150 × 45 octosporis; sporidiis oblongis, apice superiore latiore, rectis, transverse 15-, longitudinaliter 2-3-septatis, hyalinis, 120 × 25, parallele positis; paraphysibus filiformibus, apice dilatatis et fuscidulis, epithecium formantibus.

Hab. ad corticem Cinchonæ vulgo *Chinæ regiæ* dictæ venalis (Dr. Rehm).

6. **Gloniopsis multiformis** Starb. in Arkiv. för Botan. 1904, Band 2, 3149
pag. 8. — Peritheciis sparse gregariis vel aggregatis, non v. vix confluentibus, superficialibus, paullum basi innatis, plerumque ellipsoideis v. oblongatis, utrinque obtusiusculis, elongatis, flexuosis vel rectis et acutiusculis, usque 1 mm. longis, 200 μ. latis, sæpe fere sphæroideis vel ovoideis, circ. 200 μ. diam., levibus v. rugosulis, atratis; ascis late cylindraceis vel clavatis, deorsum mox angustioribus, breviter pedicellatis, sursum rotundatis, paullo incrassatis, 60-80 × 19-23; sporidiis octonis, conglobatis, transversim 5-7-septatis, loculis longitudinaliter 1-3-partitis, medio constrictis piriformibus vel ovoideis, hyalinis, 19-22 × 7,5-10; paraphysibus filiformibus, ramulosis, hyalinis.

Hab. in petiolis foliorum Copernicieæ ceriferæ, Paraguary in Paraguay. — *G. decipienti* De Not. affinis.

II. *Hemigloniopsis* Paoli. Perithecia imperfecta h e dimidiata.

7. **Gloniopsis tecta** Paoli App. N. G. B I. 1905, p. 111, cum icone. 3150

— Peritheciis parallele subgregariis, profunde immersis 1-2 × $^1/_2$-$^3/_4$ mm. superne ligno nigrificato obtectis et fere formatis, inferne tenuibus, hyalinis, ellipticis, elongatis, utrinque acutissimis, opacis, rima longitudinali brevi exaratis, labiis inflexis; ascis cylindraceis vel vix clavatis, 110-130 × 16-18, sessilibus, octosporis; sporidiis oblique monostichis v. subdistichis, oviformibus, septulis transversalibus 6-7, loculis longitrorsum 3-4 partitis, hyalinis, endoplasmate granuloso, episporio crassiusculo, 22-25 × 10-11; paraphysibus rectis, haud ramosis, epithecium crassum hyalinum formantibus.

Hab. ad lignum (abietinum?) intemperiis expositum juxta flumen Piave, Prov. di Treviso (herb. Sacc.).

8. **Gloniopsis Penzigi** Paoli App. N. G. B. I. 1905, p. 111. — Peri- 3151
theciis punctiformibus, suborbicularibus, 0,5 × 0,4 mm. convexiusculis, coriaceo-membranaceis, atris, utrinque obtusis, semiemergentibus, superne e contextu proprio nigro formatis, inferius tenuibus, hyalinis, rima brevi excavata pertusis; ascis cylindraceis vel vix clavatis, 100-120 × 16-18, sessilibus, typice octosporis, rarius oligosporis; sporidiis oblique monostichis, oviformibus, septulis transversalibus 6-8, loculis longitrorsum 3-4 partitis, hyalinis, endoplasmate granuloso, episporio crassiusculo, 22-25 × 10-11; paraphysibus rectis, haud ramosis, epithecium crassum hyalinum formantibus.

Hab. in ligno eroso Oleæ prope Mentone, Nizza (Penzig in herb. Sacc.)

Sect. 7. Phæodictyæ.

HYSTEROGRAPHIUM Corda — Syll. II p. 776, IX p. 1119, XI p. 389, XIV p. 718, XVI p. 668.

1. **Hysterographium Rousselii** (De Not.) Sacc. — Syll. II, p. 779. — 3152
f. **Piri** Feltg. Vorst. Pilz. Luxemb. Nachtr. III, 1903, p. 111. — A typo differt peritheciis subcæspitosis, paullo minoribus, 1-2 mm. long., 0,5 mm. lat., semper levibus, opace nigris; ascis brevioribus et latioribus 82-108 × 13-18; sporidiis flavis vel flavo-brunneolis.

Hab. in ligno nudo Piri communis, Luxemburg.

2. **Hysterographium Bakeri** Earle Plantæ Bakerianæ, fasc. II, Fungi 3153
p. 10. — Peritheciis gregariis, sæpe congestis, nigris, superficia-

libus, subcylindraceis, utrinque obtusis, rima longitudinali percursis, sæpe e latere longitudinaliter striatis 0,5-1 mm. longis, 350 μ. crassis; ascis subcylindraceis 80 × 12, paraphysibus brevioribus obvallatis; sporidiis distichis, ellipticis vel subcylindraceis, 5-7-septatis, leviter constrictis, muriformibus, utrinque subobtusis, brunneis 20-22 × 6.

Hab. in ligno decorticato nigrificato Cercocarpi, Hermosa, Colorado, Amer. bor.

3. **Hysterographium nucicolum** (Schw.) Ell. et Ev. in Journ. of Mycol. 1902, vol. 8, p. 19, *Hysterium nucicolum* Schw. — Syll. II, p. 756, *Hyst. hians* Ell. et Ev. in herb. — Peritheciis elongatis 0,8-1 mm. long. 0,5 mm. latis, nigris, levibus, indistincte striatis, rectis v. curvatis, apice obtusis, rima distincte apertis; ascis oblongo-clavatis, paraphysatis 60-70 × 12-15; sporidiis ovato-oblongis, biseriatis, initio hyalinis dein brunneo-nigris, 4-6-septatis, longitudinaliter septato-muriformibus, ad septum medium constrictis 15-22 × 6-9. 3154

Hab. in nucibus ad terram putrescentibus, Newfield, in Amer. boreali.

GRAPHYLLIUM Clements — Syll. XVI p. 1145.

1. **Graphyllium Chloës** Clements Bot. Surv. Nebraska 1901, p. 6. — Peritheciis minutis, sparsis vel gregariis, interdum linearibus, innatis, longitudinaliter erumpentibus, glabris, elongato-ellipticis v. linearibus, membranaceis; contextu parenchymatico e cellulis irregularibus, polygonalibus 5 × 6 composito, nigris, rima exili percursis, 100-300 × 30-50; ascis octosporis ovoideo-clavatis 60 × 15 vel cylindraceo-clavatis 90-110 × 12; sporidiis distichis vel irregulariter monostichis, brunneis vel luteo-brunneis, oblongis v. ovato-oblongis, utrinque obtuse rotundatis, 3-raro 4-septatis, maturitate longitudinaliter divisis, 1 loculo compresso, altero subinflato, 20-22 × 8-10. 3155

Hab. in ramulis Aristidæ purpureæ et Bouteloueæ oligostachyæ, in Nebraska, Amer. bor.

Sect. 8. Scolecosporæ.

LOPHODERMIUM Chev. — Syll. II p. 791, IX p. 1124, XI p. 390, XIV p. 720, XVI p. 670.

1. **Lophodermium montanum** Ferraris in Malpighia 1902, p. 456, t. X, 3156

f. IV. — Peritheciis sparsis, innato-depressis, atris, ellipsoideis 0,5–1 mm. long., rugulosis, rima longitudinali demum hiantibus; ascis clavatis, basi attenuatis, 70-80 × 9-10, octosporis; sporidiis parallele stipatis, filiformibus, pluriguttulatis, 40-50 × 1-1,5; paraphysibus filiformibus, flexuosis.

Hab. in foliis siccis Tofieldiæ calyculatæ, Courmayeur, Italiæ bor.

2. **Lophodermium Theobromæ** Pat. in Duss Enum. Champ. Guadel. 1903, p. 84. — Maculis amphigenis, albidis, siccis, orbicularibus, 4–8 mm. diam., linea nigra nulla cinctis, sparsis confluentibusque; peritheciis epiphyllis, in medio maculæ paucis approximatis, superficialibus, nigris, angustis, utrinque attenuatis, vix 0,5 mm. long., 125 μ. lat. rectis, curvis v. trigonis, longitrorsum fissis, labiis conniventibus; contextu denso, brunneo-nigro, cellulis minutis angulosis formato; ascis cylindraceis, utrinque attenuatis, 85–90 × 5-7, octosporis; paraphysibus filiformibus sursum vix incrassatis; sporidiis filiformibus, 60–65 μ. long., parce guttulatis. 3157

Hab. in foliis languidis Theobromæ Cacao, Basse-Terre Guadalupa (Duss). — Affine *L. hysterioidi*, a quo peritheciis angustissimis distinguitur.

3. **Lophodermium Spirææ** Hazsl. Zool. bot. Verh. 1887, p. 153. — Peritheciis ovalibus vel oblongis, obscure fuscis, rima angusta percursis, hymenio molli; ascis clavatis, inferne anguste pedicellatis; sporidiis filiformibus, utrinque acutatis, haud septatis. 3158

Hab. ad caules Spirææ Aruncí, Vallis Kohlbach, Tatra Hungariæ.

LOPHIUM Fr. — Syll. II p. 799, IX p. 1126, XIV p. 723.

1. **Lophium leptothecium** Earle Plantæ Bakerianæ, fasc. II, Fungi, p. 11. — Peritheciis sparsis vel gregariis, erectis, oblongis, compressis, basi immersis, nigris, fragilibus, carbonaceis, transverse rugoso-striatis, rima exili, valde compressis 1-1,5 mm. longis, 0,5 mm. crassis; ascis 400–500 × 6, paraphysibus filiformibus, 1 μ. cr. ramosulis suffultis; sporidiis asco æquilongis, 2 μ. crassis, intense brunneis, dense septatis. 3159

Hab. in ramis emortuis Amelanchieris, Quercus, Rhois, Hermosa, Colorado, Amer. bor.

LABOULBENIOMYCETÆ Peyr. *)

(sub titulo *Laboulbeniaceæ* Peyr. 1875)

Syll. VIII p. 909, IX p. 1130, XI p. 446, XIV p. 725, XVI p. 674.

DIMEROMYCES Thaxter — Syll. XIV p. 275, XVI p. 674.

1. **Dimeromyces Forficulæ** Thaxter Proceed. of the Americ. Acad. 3160
of Arts and Sciennes 1902, p. 9.

Hab. in corpore Forficulæ tæniatæ in Guatemala. — Mas: long. total. 60; antheridium cum stipite 28–30 × 7–8. Femina: long. total. 150–185 µ.; appendices 80 µ. longæ; perithecia cum stipite 90–110 × 18–22; sporidia 35 × 3,5.

MONOICOMYCES Thaxter. — Syll. XVI p. 675.

1. **Monoicomyces Oxypodæ** Thaxter, Proceed. of the Americ. Acad. 3161
1902, p. 10.

Hab. in abdomine Oxypodæ, Intervale N. H. Amer. bor. — Long. tot. 150–165 µ.; appendices 75 longæ; perithecia 75–90 × 18–20; antheridia 107 × 25–35 µ. long.; sporidia 45 × 4,5.

2. **Monoicomyces nigrescens** Thaxter, Proceed. of the Americ. Acad. 3162
1902, p. 10.

Hab. in abdomine Calloderæ et Tachyusæ speciei, Intervale N. H. Amer. bor. — Long. Tot. 100–160 µ.; appendices 35–50 µ. longæ perithecia 60–65 × 22–25; antheridia 35 µ. long.

HERPOMYCES Thaxter, Proceed. of the Americ. Acad. of Arts and Sciences 1902, p. 11 (Etym. *herpo* serpo et *mycés*).

1. **Herpomyces chætophilus** Thaxter l. c. p. 12. 3163

Hab. in spinis et antennis Periplanetæ sp. Zanzibar et ins. Mauritii Africæ merid. — Mas: long. tot. 50–55 µ. Femina: tot. long. individui primarii 35–40 µ.; receptaculum secundarium 35–75 × 22; perithecia 125–185 × 35–48; sporidia 30–35 × 3.

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*) De speciebus Labulbeniacearum Thaxterianis cfr. Syll. XIV, p. 725 nota.

2. **Herpomyces Periplanetæ** Thaxter l. c. p. 13. 3164

Hab. in corpore Periplanetæ et Stylopygæ sp. pl., Bermuda, Mexico, Panama, Brasilia, China et Amer. bor. — Mas: long. tot. 60-90 µ. Femina: tot. long. 125 × 75; perithecia 145-220 × 30-36; sporidia 16 × 1,5.

3. **Herpomyces arietinus** Thaxter l. c. p. 14.

Hab. in antenna insecti cujusdam Kentucky Amer. bor. — 3165
Mas: tot. long. 29 µ., antheridia 20 µ. long. Femina: perithecia 100 × 22, cum processu terminali 18 µ. long.; receptaculum secundarium 55 × 18; sporidia 20 × 2.

4. **Herpomyces zanzibarinus** Thaxter l. c. p. 15. 3166

Hab. in antenna insecti cujusdam, Zanzibar Africæ. — Mas: tot. long. 28 × 6,5; antheridia 25 µ. long. Femina: perithecia 125 × 28-32, cum processu terminali 10 µ. longo; paria receptaculi 45 × 30-35.

5. **Herpomyces forficularis** Thaxter l. c. p. 15. 3167

Hab. in antenna insecti cujusdam, ins. Mauritii? Africæ merid. — Mas: tot. long. 18 × 5; antheridium 35 µ. long. Femina: long. tot. perithecii 220-250; receptacula secundaria 35 × 20-35; sporidia 18 × 2.

6. **Herpomyces Diplopteræ** Thaxter, l. c. p. 16. 3168

Hab. in corpore Diplopteræ dityscoidis, in insula Ascension Atlantici merid. — Mas: tot. long. 50 µ.. Femina: long. tot. 175-185; perithecia, pars ascigera, 70-75 × 28-30.

7. **Herpomyces tricuspidatus** Thaxter, l. c. p. 17. 3169

Hab. in antennis Blaberæ et Epilampræ? spp., Panama, St. Kitts, Haiti, China? — Mas: long. tot. 75 µ. Femina: long. tot. 175 200 µ. lat. maxima 220 µ.; pars ascigera perith. 45-50 × 15; sporidia 12 µ. long.

8. **Herpomyces paranensis** Thaxter, l. c. p. 19.

Hab. in antenna Blaberæ? sp. Para Brasiliæ. — Mas: long. 3170
tot. 250 µ.; antheridia 60-70 µ. long. Femina: long. tot. 123 µ., pars ascig. perith. 58 × 30; sporidia 15 × 1,6.

9. **Herpomyces Ectobiæ** Thaxter, l. c. p. 20.

Hab. in corpore Ectobiæ germanicæ et sp, Cambridge, 3171
Zanzibar, St. Kitts. — Mas: long.? Femina: long. tot. receptaculi secund. 200-225 × 15; perithecia cum basi 80-90 × 20; sporidia 20 × 2,5.

CORETHROMYCES Thaxter — Syll. XI p. 449, XIV p. 729, XVI p. 681.

1. **Corethromyces longicaulis** Thaxter, Proceed. of the Americ. Academy 1902, p. 20. 3172

Hab. in corpore Stilici angularis, Arlington Mass. Amer. bor. — Longit. tot. 200 μ.; perithecia 65 × 20; cellula basil. 90-110 × 12; sporidia 30 × 3.

ACOMPSOMYCES Thaxter — Syll. XVI p. 692.

1. **Acompsomyces Atomariæ** Thaxter, l. c. p. 22. 3173

Hab. in elytris Atomariæ ephippiatæ, Kittery, Point Maine et Intervale N. H. Amer. bor. — Long. tot. 125-150 μ.; perithecia 36-46 × 25-30; cellula basil. 25-30 × 10; sporidia 44 × 3.

2. **Acompsomyces pauperculus** Thaxter, l. c. p. 23. 3174

Hab. in elytra, prothorace et artubus Atomariæ spec. Kittery Point, Maine Amer. bor. — Long. tot. 110; perithecia 70 × 30-35; cellula basilaris 12-18 × 9; sporidia 45 × 4.

ACALLOMYCES Thaxter, Proceed. of the Americ. Acad. of Arts and Sciences 1902, pag. 23 (Eym. *a* privat. *callos* pulchritudo et *myces*).

1. **Acallomyces Homalotæ** Thaxter, l. c. p. 24. 3175

Hab. in parte superiore abdominis Homalotæ, Intervale N. H., Amer. bor. — Long. tot. 125-150; perithecia 75-95 × 25-32; antheridia 21-25 μ. long.; sporidia 35 × 3,5.

STICHOMYCES Thaxter. — Syll. XVI p. 692.

1. **Stichomyces stilicicola** Thaxter, Proceed. of the Amer. Acad. 1902, p. 24. 3176

Hab. in thorace, prothorace et artubus Stilici angularis Arlington Mass. Amer. bor. — Appendices 150-200 μ. long.; perithecia 60-90 × 18-28; cellula basil. 90-100 × 20; sporidia 35 × 3.

RHACHOMYCES Thaxter — Syll. IX p. 454, XIV p. 735, XVI p. 690.

1. **Rhachomyces anomalus** Thaxter, Proceed. of the Americ. Academy, 1902, p. 25. 3177

Hab. in corpore Conosomatis pubescentis Waverly M. Amer. bor. — Long. tot. 110-125; perithecia 75-90 × 20-25; appendices longiores 75 μ. long.; sporidia 46 × 4.

2. **Rhachomyces Berlesianus** Bacc. in N. giorn. bot. it. 1904, p. 418. 3178
tab. IV, f. 2. — Peritheciis singulis obovatis subhyalinis, trichogynis evanidis; receptaculo pluricellulari, cellulis triserialibus ad basin usque, sed basin versus gradatim tenuioribus; serie cellularum mediana clavato-fusiformi ex cellulis intense nigrefactis et ob parietum densitatem ad septa anulatis formata; serie laterali e cellulis hyalinis appendicem brevem atram obconicam in quoque apice gerentibus formata; antheridiis non visis.

Hab. in acaride Fedrizzia grossipede Can., Australia — Dedit cl. prof. Ant. Berlese, cui merito dicata species.

CERAIOMYCES Thaxter. — Syll. XVI p. 682.

1. **Ceraiomyces Selinæ** Thaxter, Proceed. of the Americ. Acad. 1902, 3179
p. 26.

Hab. in prothorace Selinæ Westermanni, in India orient. — Long. tot. 219-490; receptaculum 200-325 × 25-30; appendices 185-400; perithecia 125-150 × 30-35; cellula basilaris 22-25 µ. long.

ECTEINOMYCES Thaxter, Proceed. of the Americ. Academ. 1902, p. 26 (Etym. *ecteino* extendo et *myces*).

1. **Ecteinomyces trichopterophilus** Thaxter, l. c. p. 26. 3180

Hab. in elytris et abdomine Trichopterycis Haldemani Intervale N. H. Amer. bor. — Long. tot. 100-220; perithecia 55-65 × 22-28; appendices 75-100 µ. long.; receptaculum 95-140 × 7-12; sporidia 25 × 3.

LABOULBENIA Mont. et Rob. — Syll. VIII p. 909, IX p. 1132, XI p. 450, XIV p. 730, XVI p. 682.

1. **Laboulbenia acanthophora** Thaxter, Proceed. of the Americ. Acad. 3181
1902, p. 27.

Hab. in elytris Pericalli in India orient. — Tot. long. 580; perithecia 220 × 50; cellula basilaris 60 × 30; receptaculum 220 × 65; sporidia 75 × 4,5.

2. **Laboulbenia Bledii** Thaxter, l. c. p. 27. 3182

Hab. in elytris et abdomine Bledii Jacobinii, in California. — Long. tot. 290-360 µ.; receptaculum 220-275 × 45; appendices 90 µ. long.; perithecia 100-125 × 35-40.

3. **Laboulbenia borneensis** Thaxter, l. c. p. 28. 3183

Hab. in corpore Thyreopteri? spec., S. Borneo. — Long.

tot. 350-380; perithecia 100-120 × 35-50; sporidia 45 × 4; receptaculum 250-290 μ. long.

4. **Laboulbenia cauliculata** Thaxter, l. c. p. 29. 3184

Hab. in corpore Colpocacci, Athelotri, Mesothrisei specier. in insulis pluribus Oceaniæ. — Tot. long. 220-290; perithecia 125-165 × 45-60; sporidia 58 × 5; receptaculum 90-100 × 35-40; appendices 125-185. — var. **prolixa** Thaxter l. c. p. 29. In corpore Mesothrisei tricoloris et M. collaris, Molokai, Maui et Oahu in insulis Oceanicis. — Tot. long. 450-670; perithecia 365-540 × 55; sporidia 70 × 5. — Var. **spectabilis** Thaxter, l. c. p. 30. In corpore Discoli et Metromeni specier., Oahu, Molokai, insulis Oceanicis. — Long. tot. 290-360; perithecia 165-200 × 40-48.

5. **Laboulbenia columbiana** Thaxter, l. c. p. 30. 3185

Hab. in setis elytræ Anchonoderi concinni, Columbia. — Tot. long. 200-250 μ.; perithecia 90-110 × 20-25; receptaculum 150 × 30; appendices 40 μ. long.; sporidia 50 × 4.

6. **Laboulbenia concinna** Thaxter, l. c. p. 31. 3186

Hab. in abdomine Casnoniæ sp., Buitenzorg Java. — Tot. long. 325-375; perithecia 150-180 × 33-45; stipes 30 × 25; receptaculum 150-175 × 55-65; appendices 125 μ. long.

7. **Laboulbenia corniculata** Thaxter, l. c. p. 31. 3187

Hab. in corpore Galeritæ carbonariæ in Brasilia. — Tot. long. appendic. 450-600 μ.; perithecia 165-240 × 60-80; receptaculum 325-475 μ. long.; sporidia 90-110 × 7.

8. **Laboulbenia Craspidophori** Thaxter, l. c. p. 32. 3188

Hab. in corpore Craspidophori, Panagæi, Microsomi spp. in India or., Calabar, Congo, Liberia Africæ. — Tot. long. 280-500; perithecia 180-210 × 48; receptaculum 150-325 μ. long.; appendices 300-375 μ. long.; sporidia 75 × 5.

9. **Laboulbenia curvata** Thaxter, l. c. p. 33. 3189

Hab. in artubus Galeritæ carbonariæ et G. speciei in Brasilia. — Long. tot. 500-600 μ.; perithecia 325-400 × 50-70; receptaculum 185-220 × 75-90; sporidia 70-75 × 4.

10. **Laboulbenia dentifera** Thaxter, l. c. p. 34. 3190

Hab. in elytra Notiobiæ dispositæ, Chontales Nicaragua. — Long. tot. 240; perithecia 125 × 32; receptaculum 115 × 55; appendices 220 μ. long.

11. **Laboulbenia Disenochi** Thaxter, l. c. p. 34. 3191

Hab. in corpore Disenochi et Brosconegnei spp. in insulis

Hawai. — Tot. long. 290-360; perithecia 150-165 × 58-62; receptaculum 185-220; sporidia 65 × 6.

12. **Laboulbenia Dryptæ** Thaxter, l. c. p. 34. 3192

Hab. in corpore Dryptæ ruficollis, Natal Africæ. — Long. tot. 220-250; receptaculum 135-180 μ. long.; appendices 220 μ. long.; perithecia 110-150 × 35-40.

13. **Laboulbenia dubia** Thaxter, l. c. p. 35. 3193

Hab. in abdomine Philonthi politi, Alverstoke Britanniæ. — Tot. long. 440-500; perithecia 165-185 × 55-65; receptaculum 320-325 × 75; appendices 220 μ. long.; sporidia 55 × 5.

14. **Laboulbenia Euchilæ** Thaxter, p. 36. 3194

Hab. in artubus Euchilæ flavilabris, in Brasilia. — Long. tot. 300-350; perithecia 100-30; receptaculum 220-250 × 35-40; appendices 150 μ. long.; sporidia 60 × 4,5.

15. **Laboulbenia Eudaliæ** Thaxter, l. c. p. 36. 3195

Hab. in elytris et artubus Eudaliæ latipennis, Port Denisson Australiæ. — Long. tot. 250-350 μ.; perithecia 150-155 × 55; receptaculum 170-220 μ. long.; appendices 180-225 μ. long.; sporidia 72 × 5.

16. **Laboulbenia exigua** Thaxter, l. c. p. 37. 3196

Hab. in thorace Chlænii biguttati in Japonia. — Long. tot. 250-290; perithecia 86 × 26; receptaculum 220 μ. long.; appendices 150-184 μ. long.; sporidia 40 × 4.

17. **Laboulbenia flaccida** Thaxter, l. c. p. 37. 3197

Hab. in artubus Casnoniæ subdistinctæ, loco non indicato. — Tot. long. 175-220 μ.; perithecia 80-90 × 25-30; receptaculum 90-125 μ. long.; appendices 150-200 μ. long.; sporidia 40 × 4.

18. **Laboulbenia Tachyis** Thaxter, l. c. p. 38. 3198

Hab. in corpore Tachyis incurvi et T. spp., Cambridge et Florida, Amer. bor. — Tot. long. 155 μ.; perithecia 60 × 16; receptaculum 110 μ. long.; appendices 45 μ. long.

19. **Laboulbenia formicarum** Thaxter, l. c. p. 39. 3199

Hab. in corpore Lasii americani et Formicæ neogagatis, Cambridge Mass. Amer. bor. — Tot. long. 70-80 μ.; perithecia 50-60 × 16-18; receptaculum 30-35 × 18; appendices 90 μ.; sporidia 30 × 2,5.

20. **Laboulbenia fusiformis** Thaxter, l. c. p. 39. 3200

Hab. in prothorace Galeritæ carbonariæ, in Brasilia. — Tot. long. 1650 μ.; perithecia 450-580 × 60-75; receptaculum 500-1000 × 70-75; appendices 275-375; sporidia 90 × 7.

21. **Laboulbenia hawaiensis** Thaxter, l. c. p. 40. 3201

Hab. in corpore Atelothri, Disenochi, Maunæ, Colpodisci, Mesothrisei spp. in insulis oceanicis pluribus. — Tot. long. 280-360 μ.; perithecia 90-125 × 40-55; receptaculum 200-335; appendices 290-725 μ. long.; sporidia 65 × 5.

22. **Laboulbenia Helluodis** Thaxter, l. c. p. 41. 3202

Hab. in corpore Helluodis nebrioidis, Ceylon. — Tot. long. 360 μ.; perithecia 150-165 × 40-55; receptaculum 185-220 × 60; appendices 290 μ. long.; perithecia 150-165 × 40-55; sporidia 85 × 5.

23. **Laboulbenia Helluomorphæ** Thaxter, l. c. p. 42. 3203

Hab. in elytris Helluomorphæ melanariæ et Pleurocanthi brevicollis in Amazonia et Surinam. — Tot. long. 290-325; perithecia 130-140 × 35-40; receptaculum 180-220; appendices 185-300 μ. long.; sporidia 70 × 7.

24. **Laboulbenia humilis** Thaxter, l. c. p. 42. 3204

Hab. in elytris Chlænii monogrammi et Chl. cyanicipitis, Hong-kong. — Tot. long. 250-275 μ.; perithecia 100-125 × 30; receptaculum 185 μ. long.; appendices 60-75 μ. long.; sporidia 50 × 5.

25. **Laboulbenia incerta** Thaxter, l. c. p. 43. 3205

Hab. in corpore Galeritæ carbonariæ in Brasilia. — Tot. long. 360-500 μ.; perithecia 185-250 × 60; receptaculum 185-290 × 70-80; appendices 200-250 μ. long.; sporidia 95-100 × 8.

26. **Laboulbenia insignis** Thaxter, l. c. p. 43. 3206

Hab. in thorace Thyreopteri brevicollis, Madagascar. — Tot. long. 600-650; perithecia 290-310 × 80-87; receptaculum 365-540 × 150; appendices 2200 μ. long.; sporidia 185 × 6,5.

27. **Laboulbenia japonica** Thaxter, l. c. p. 44. 3207

Hab. in artubus Brachini spec., in Japonia. — Tot. long. 420; perithecia 235 × 70; receptaculum 185 × 70; appendices 100-150 μ. long., sporidia 80 × 5.

28. **Laboulbenia Latonæ** Thaxter, l. c. p. 45. 3208

Hab. in corpore Latonæ Spinolæ, Bogota Columbiæ. — Tot. long. 325-1125 μ.; perithecia 175-220 × 70; appendices 1150 μ. long.; sporidia 70 × 5.

29. **Laboulbenia media** Thaxter, l. c. p. 45. 3209

Hab. in corpore Galeritæ spp. Venezuela et Costarica. — Tot. long. 350-725 μ.; perithecia 180-290 × 40-48; stipes 55-

125 × 26-35; receptaculum 150-220; appendices 165-185; sporidia 45 × 4,5.

30. **Laboulbenia Megalonychi** Thaxter, l. c. p. 46. 3210

Hab. in prothorace Megalonychi patrobioidis et M. angolensis in Africa orient. — Tot. long. 300-435; perithecia 100-125 × 40-50; receptaculum 275-360 μ. long.; appendices 185 μ. long.; sporidia 58 × 5.

31. **Laboulbenia notata** Thaxter, l. c. p. 47. 3211

Hab. in corpore Thyreopteri armati, Madagascar. — Tot. long. 1150 μ.; perithecia 271 × 55; receptaculum 1100 × 75; appendices 185 μ. long.

32. **Laboulbenia obliquata** Thaxter, l. c. p. 48. 3212

Hab. in elytris Coptoderæ gagatinæ in Brasilia. — Long. tot. 325-360 μ.; perithecia 165-170 × 40; receptaculum 185-200 × 45; sporidia 45 × 3,5.

33. **Laboulbenia Œdichiri** Thaxter, l. c. p. 48. 3213

Hab. in elytris et abdomine Œdichiri sp. Rio de Janeiro Brasiliæ. — Tot. long. 250 μ.; perithecia 125 × 32; receptaculum 150 × 30; appendices 90 μ. long.; sporidia 55 × 5,5.

34. **Laboulbenia pallida** Thaxter, l. c. p. 49. 3214

Hab. in elytris Clivinæ fasciatæ et Cl. dilutipennis, in Guatemala et in Mexico. — Tot. long. 290-380; perithecia 125-150 × 60-70; receptaculum 220-300 μ. long.; appendices usque 150 μ. long.; sporidia 75 × 6.

35. **Laboulbenia perplexa** Thaxter, l. c. p. 49. 3215

Hab. in elytris et prothorace Galeritæ carbonariæ in Brasilia. — Tot. long. 500 μ.; perithecia 290-360 × 50-60; receptaculum 220 × 60-70; appendices 200-360 μ. long.; sporidia 90 × 7.

36. **Laboulbenia Planetis** Thaxter, l. c. p. 50. 3216

Hab. in thorace Planetis bimaculati in Java. — Tot. long. 400-425; perithecia 155-165 × 55-60; receptaculum 250 μ. long.; appendices 360-435; sporidia 65 × 5.

37. **Laboulbenia Platyprosopi** Thaxter, l. c. p. 51. 3217

Hab. in elytris et abdomine Platyprosopi beduini in Nubia. — Tot. long. 275-350; perithecia 150-185 × 36-45; receptaculum 150-220 × 60-70; appendices usque 360 μ.; sporidia 55 × 5.

38. **Laboulbenia producta** Thaxter, l. c. p. 52. 3218

Hab. in elytris Anchonoderi concinni in Columbia. — Tot. long. 220 μ.; perithecia 90-100 × 25; receptaculum 110 μ. long.; sporidia 55 × 4.

39. **Laboulbenia proliferans** Thaxter — Syll. XIV, p. 734. — var. **atrata** Thaxter, l. c. p. 53. 3219

Hab. in corpore Chlænii, Euchlænii, Craspedophori, Rhopalomeli spp. in Africæ variis locis. — Var. **cincta** Thaxter, l. c. p. 53. In corpore Eudematis, Episcosomi, Craspedophori in Africa, variis locis. — Var. **divaricata** Thaxter, l. c. pag. 53. In corpore Chlænii, Notonomi, Bembi Rhembi spp., Borneo, Australia, Japonia, Java.

40. **Laboulbenia Sphyriopsidis** Thaxter, l. c. p. 53. 3220

Hab. in corpore Mitronemi caliginosi, in insulis Hawai. — Perithecia 90-110 × 40-48; receptaculum 220-250 μ. long.; appendices 150-185 μ. long.

41. **Laboulbenia Stomonaxi** Thaxter, l. c. p. 54. 3221

Hab. in elytris Stomonaxi sp., in Java. — Tot. long. 130-140 μ.; perithecia 65 × 25; receptacula 100-710 μ. long.; appendices 50-75 long.; sporidia 50 × 5.

42. **Laboulbenia texana** Thaxter. — Syll. XIV, p. 734. — var. **pendula** Thaxter, l. c. p. 55. 3222

Hab. in corpore Brachyni geniculati et Br. lateralis, Uruguay et Mexico.

43. **Laboulbenia Napoleonis** Bacc. in N. Giorn. bot. it. 1904, p. 417. 3223 — Peritheciis ovatis singulis in quoque exemplari, apice truncatis, subhyalinis, ore nigrefacto vel obscuriore; receptaculis subhyalinis stipitatis, stipite inferne uniseriato tricellulari, superne e quatuor cellulis biserialibus efformato, quarum serie altera perithecium gerente, altera singulam vel binas appendices filiformes hyalinas articulatas; cellulis insidentibus suberosis nigrificatis; antheridiis non visis.

Hab. in acaride Antennophoro Foreli Wasm., Luxemburg. — Eximio mycologo b. m. Aug. Napol. Berlese, qui primus in Italia de Laboulbeniomycetis disseruit, merito dicata species.

44. **Laboulbenia argentinensis** Speg. Myc. argent. ser. II, 1902, 3224 p. 79. — Atro-fuliginea, hinc inde pauci-aggregata, erecta 350 μ. alta; stipite chlorino-fusco 220 μ. alto, ima basi rotundato, crassiuscule tunicato, infra medium cylindraceo 30-35 μ. crasso, supra medium obconico 70 μ. lat. apic., ejusdem ramulis v. pedicellis atro-opacis, 25 × 20-30; paraphysibus 6-8 linearibus 60 μ. long., toruloso-6-articulatis; articulis chlorinis ellipticis, 10-12 × 7-8; antheridiis obclavulatis 50 × 10, subfumosis, sursum attenuatis apice truncatis; peritheciis ellipticis, utrinque subtruncatis, 140-

150 × 50-60, ostiolo obsolete denticulato, fuligineis, subopacis; ascis clavulatis vel oblanceolatis 60 × 18, sessilibus, aparaphysatis; sporidiis subquaternis conglobatis, leniter arcuatis utrinque acutiusculis, 30-40 × 3-4, hyalinis.

Hab. ad oculos Brachyni cujusdam vivi, prope Buenos Ayres in Argentina (J. Brèthes).

COREOMYCES Thaxter, Proceedings of the Americ. Acad. of Arts and Sciences 1902, p. 56 (Etym. *coris* cimex st *myces*).

1. **Coreomyces Corisæ** Thaxter, l. c. p. 56. 3225

Hab. in abdomine Corisæ Kennicottii spp. Arlington Mass. et Java, Amer. bor. — Tot. long. 275-290 μ.; perithecia 100-110 × 25-35; stipes 30-33 × 32-35; receptaculum 75-100 μ. long.; appendices 200-250 μ.; sporidia 85 × 6.

REPERTORIUM

FUNGORUM IN VOL. XVII. DESCRIPTORUM

secundum matrices (vegetabilia et animalia)

Obs. — *Ga. Gasteromycetæ. — Hy. Hymenomycetæ. — La. Laboulbeniaceæ. — P. Phycomycetæ. — Py. Pyrenomycetæ. — Ur. Uredinaceæ. — Ust. Ustilagineæ.*

Abies — Hy. 191, 352, 435, 559, 568 *bis*, 625. — Ur. 1351 — Py. 1888, 1913, 2067 *bis*, 2266, 2295, 2408, 2739, 2791, 3099, 3150.
Acacia — Hy. 511. — Ur. 1335, 1536. — Py. 2071, 2080, 2235, 2307, 2658.
Acanthaceæ — Ur. 1384.
Acanthophyllum — Py. 1779.
Acanthospermum — Ur. 1003.
Acer — Hy. 274, 569, 574. — Py. 1946, 2008, 2061, 2259, 2260, 2275, 2380, 2387, 2452, 2453, 2464, 2532, 2567, 2655, 2667, 2679, 3088.
Achillea — Ur. 949, 950. — Py. 2531, 2600, 2601, 2602.
Acicarpha — Ur. 1063.
Acnistus — Py. 2976.
Aconitum — Ur. 1206.
Acridocarpus — Py. 1849.
Acriulus — Ur. 1570.
Acroptilon — Ur. 1004.
Actæa — Ur. 1320. — Py. 2137, 2238.
Actinomeris — Ur. 965.
Adenia — Ur. 1426.
Adenostegia — Ur. 1090.
Adenostyles — Ur. 930.
Adianthum — Ur. 919.
Adolphia — Py. 2888.
Ægiphila — Py. 1932.
Ægopodium — Ur. 1154.
Æsculus — Hy. 626. — Py. 2261, 2581.
Æthusa — Ur. 1148.
Agaricus — P. 1681.
Agathis — Py. 3124.
Agave — Py. 1971, 1988, 2732, 2790, 2941, 3123.
Agropyrum — Ur. 1284. — Ust. 1662.
Agrostis — Py. 2962.
Ailanthus — Py. 2218.
Ainslia — Ur. 1005.
Aira — Py. 2318.
Albizzia — Ur. 1534.
Aleurites — Hy. 426. — Py. 2074.
Alisma — P. 1747. — Py. 1972, 2626, 2692.
Allium — Ur. 888, 911, 912, 1224. — P. 1778.
Allophyllum — Ur. 1512.

Alnus — Hy. 203, 503 *bis*, 513, 533 *ter*, 535, 563, 569 *bis*, 575, 599 *ter*, 604 *bis*, 607 *bis*, 611, 615, 621 *ter*, 624 *bis*, 635, 637, 647, 727. — Py. 1879, 1918, 2019, 2243, 2311, 2387, 2407, 2444, 2463, 2703.
Alsine — Py. 2638, 2639.
Alstroemeria — Ur. 1232.
Althæa — Ur. 1425.
Alyssum — Ur. 1195.
Alyxia — Py. 2975.
Ambrosinia — Ust. 1643.
Amelanchier — Ur. 1353. — Py. 2650, 3086, 3087, 3159.
Amorpha — Py. 2016.
Ampelopsis — Py. 2279.
Amphicarpa — Ur. 1436.
Amsonia — Py. 1965.
Amygdalus — Hy. 572. — Py. 2368.
Anacardium — Py. 1859.
Ananassa — Py. 3059.
Anchusa — Ur. 1277.
Ancylanthus — Ur. 1377, 1484.
Andira — Py. 1801, 2715.
Andropogon — Ur. 1269, 1270. — Ust. 1613, 1624 *bis*, 1648, 1649, 1654, 1669 *bis*. — Py. 2226.
Androsace — Ust. 1589.
Androsæmum — Py. 2269.
Andryala — Ur. 1480.
Anemone — Ur. 1208, 1210, 1211, 1212, 1456. — Ust. 1672. — Py. 1945.
Anethum — Ur. 1148.
Angelica — Ur. 1159, 1160. — Py. 2378.
Anguillula — P. 1751.
Anisacanthus — Ur. 1083.
Annesorrhiza — Ur. 1508.
Anoda — Ur. 1188.
Anogra — Ur. 1413.
Anona — Py. 1871, 3044.
Anonaceæ — Py. 2874, 3061.
Anthemis — Ur. 953.
Anthephora — Ur. 1572.
Anthistiria — Py. 2178.
Anthoceron — Ust. 1667.
Anthocleiste — Ur. 1812.
Antholiza — Ur. 893.
Anthospermum — Ur. 1069.
Aphelandra — Ur. 1386.
Aphyllanthes — Py. 2619.
Apium — Ur. 1147.
Aplopappus — Ur. 1006.
Apocynaceæ — Py. 3118.
Apostasia — Py. 3023.
Aqua — P. 1691, 1728, 1758.
Aquilegia — Ur. 1205, 1460.
Araceæ — Py. 2411, 3036.
Aralia — Ur. 1163.
Araucaria — Hy. 198.
Arbutus — Py. 1882.
Archangelia — Ur. 1160.
Arctostaphylos — Ur. 1506.
Ardisia — Py. 1956, 3094.
Areca — Py. 2796, 2801.
Arenaria — Ur. 1214.
Ariona — Py. 2926.
Aristea — Ur. 1228.
Aristida — Py. 3155.
Aristolochia — Ur. 1219.
Aronicum — Ur. 966.
Arracacha — Ur. 1164.
Arrhenatherum — Ur. 1283.
Artemisia — Ur. 955, 956, 957. — Py. 2544, 3089.
Arthonia — Py. 1997.
Arthraxon — Py. 2023.
Artocarpus — Ga. 803.
Arum — Py. 1933.
Arundinella — Ust. 1647.
Arundinaria — Py. 2716, 2914, 2961.
Asclepiadaceæ — Py. 3095.
Aspalathus — Ur. 868.
Asparagus — Hy. 578. — Ur. 1230.
Asperula — Ur. 1080, 1300, 1302.
Aspicilia — Py. 1937, 1975, 1977, 1998, 1999, 2187, 2231.
Aspidium — Ur. 917, 922. — Py. 2925, 3069, 3092.
Asplenium — Ur. 916.
Aster — Ur. 954, 1246. — Py. 2499.
Asterisscus — Py. 1782.
Asteromæa — Ur. 1475.
Astilbe — Ur. 1333.
Astragalus — Py. 2489, 2648, 2677.

Astrocaryum — Py. 2912.
Athamanta — Ur. 1158.
Athyrium — Ur. 923.
Atractylis — Ur. 984.
Atragene — Ur. 1201. — Py. 2563.
Atrichum — Hy. 564 *bis*.
Atriplex — Ur. 1463.
Aucuba — Py. 3049.
Auerswaldia — Py. 2822.
Averrhoa — Hy. 204.

Baccharis — Ur. 932, 933, 934, 935. — Py. 1804, 1817, 1826, 1839.
Bactris — Py. 1791, 1825.
Balsamorrhiza — Py. 2603.
Bambusa — Hy. 425. — Py. 1909, 1910, 2123, 2316, 2761, 2813, 2845, 3014, 3060, 3075.
Banksia — Py. 3012, 3054.
Barkhausia — Ur. 1053.
Barneoudia — Ust. 1672.
Barroetea — Ur. 1025.
Basanacantha — Ur. 1469 *ter*.
Basella — Ur. 878.
Bauhinia — Ur. 1527. — Py. 1812, 1827, 3033.
Begonia — Py. 3063.
Bellucia — Py. 3037.
Berberis — Hy. 729. — Ur. 1199, 1200, 1283, 1453, 1454. — Py. 1828, 2532, 2665, 2681.
Berlinia — Py. 2821, 3002.
Berula — Ur. 1411 *bis*.
Beta — Ust. 1644 *bis*. — Py. 1778.
Betula — Hy. 99, 200, 342 *bis*, 504 *bis*, 525, 535, 562, 568 *bis*, 575, 599 *ter*, 604 *bis*, 614, 621, 627, 635, 657, 728. — P. 1732. — Py. 2707.
Biatora — Py. — 2284, 2469, 2521.
Bidens — Py. 2683.
Bigelovia — Ust. 1658 *bis*.
Bignonia — Py. 2161, 2394.
Bignoniaceæ — Ur. 1087, 1088, 1491. — Py. 1808, 2251.
Bilimbia — Py. 2468.
Biscutella — Ur. 1443.
Blainvillea — Ur. 1473.
Blechnum — Ur. 914, 1583, 1584.
Blepharis — Ur. 1082.
Boehmeria — Ur. 1330.
Boerhavia — Ust. 1658. — P. 1762.
Bolbophyllum — Py. 2748.
Boletus — P. 1729. — Py. 2799.
Boltonia — Ur. 1368.
Bombus — Py. 1798, 2566.
Bonannia — Ur. 1151.
Boopis — Ur. 1481.
Boronia — Ur. 1184.
Borreria — Ur. 1071, 1376.
Borrichia — Ur. 1367.
Bossiæa — Ur. 1435.
Bouletoua — Ust. 1610.
Bouvardia — Ur. 842, 1070.
Brachylæna — Py. 3107.
Brachypodium — Ur. 1273, 1280, 1289. — Py. 2317, 2519.
Bractis — Py. 3139.
Brassica — Hy. 570. — Py. 2026.
Braya — Py. 2484.
Brickellia — Ur. 1013, 1014, 1399.
Brodiæa — Ur. 1225.
Bromus — Ur. 1273, 1282, 1576. — Ust. 1663.
Brongniartia — Ur. 1348.
Brownia — Py. 2884.
Brunella — P. 1742.
Bryum — Ust. 1666.
Buddleya — Py. 1842.
Bupleurum — Py. 1949.
Burseraceæ — Ur. 1423.
Buxus — Py. 2219, 2277, 2381, 2738, 2830.
Byrsonima — Hy. 521. — Py. 2355, 3038, 3112.

Cachrys — Ur. 851. — Py. 1948.
Cacteæ — Py. 2215.
Cæsalpinia — Ur. 1346. — Py. 2435.
Calamagrostis — Ur. 1273, 1578.
Calamus — Hy. 79, 669. — Ust. 1677. — Py. 2015, 2824.
Calandrinia — Ust. 1590.
Calathea — Py. 3025, 3027, 3104.
Calendula — Ur. 958.

Calimeris — Ur. 1026.
Callirrhoe — Ur. 1425.
Callopisma — Py. 2300.
Calluna — Hy. 653. — Py. 1964, 2252.
Caltha — Ur. 1207.
Calycera — Ur. 1061, 1062.
Camellia — Py. 2594.
Campanula — Ur. 1320 *bis*.
Camptosema — Ur. 867.
Canna — Ur. 1234.
Cannabis — Ur. 1548. — P. 1679.
Caragana — Ur. 872. — Py. 2725.
Cardamine — Ur. 1320 *bis*.
Cardiandra — Ur. 1439.
Cardiospermum — Ur. 1413 *bis*.
Carduncellus — Ur. 1000, 1001.
Carduus — Ur. 993, 994. 995.
Carex — Hy. 627 *bis*. — Ur. 896, 1240, 1242 ad 1251, 1565, 1568 — Ust. 1600, 1646. — Py. 2176, 2416, 2517, 2518, 2519, 2520, 2671, 2699, 2848, 3102.
Carica — Py. 2807.
Carludovica — Py. 3001.
Carphochæta — Ur. 1366.
Carpinus — Hy. 538, 569 *ter*, 651, 730. — Py. 1813, 2404, 2465, 2572.
Carpodinus — Ur. 1502.
Carum — Ur. 1142.
Carvalhoa — Ur. 1136.
Carya — Py. 2295.
Cascarilla — Py. 2574.
Casearia — Py. 2902, 3004.
Cassandra — Ur. 1313 *ter*.
Cassia — Ur. 1337 ad 1343, 1432, 1531, 1532, 1533. — Py. 2386, 2573, 3064.
Cassupa — Py. 3117.
Cassytha — Py. 2150.
Castanea — Hy. 288, 424. — Ur. 1329. — Py. 2014, 2434, 2940.
Castilleja — Py. 2494, 2636, 2689.
Castilloa — Py. 1874.
Casuarina — Hy. 510.
Catalpa — Py. 2289, 2308, 2905.
Catopyrenium — Py. 2584.
Cattleya — Py. 1970.
Cayponia — Ur. 840.
Ceanothus — Hy. 61.
Cecropia — Hy. 436. — Py. 2932.
Cedrela — Ur. 1543.
Celastrus — Py. 2276.
Celosia — Ur. 880.
Celtis — Py. 1907, 2087, 2661, 3039.
Centaurea — Ur. 975, 976, 977, 978, 979, 1248. — Py. 2388, 2684, 2685.
Centrolobium — Py. 2887, 2967.
Centrophyllum — Ur. 981.
Cephalanthus — Ur. 1378, 1485. — Py. 3080.
Cerastes — P. 1734.
Cerastium — Py. 2474.
Cerasus — Hy. 54. — Py. 2644.
Ceratonia — Py. 3142.
Cercocarpus — Py. 2651, 3077, 3078, 3153.
Cerefolium — Ur. 1143.
Cereus — Py. 2153, 2542, 2702.
Cestrum — Ur. 844, 1093.
Chærophyllum — Ur. 1144, 1145, 1146.
Chamæcyparis — Ur. 1552.
Chamæsaracha — Ur. 1099.
Chenopodiaceæ — Ur. 1217.
Chionachne — Py. 2921.
Chloris — Ust. 1611.
Chondrilla — Ur. 1056.
Chrysanthemum — Ur. 951, 1241. — Ust. 1636.
Chrysophyllum — Hy. 160, 526. — Ur. 1507.
Chrysopogon — Ust. 1658.
Chrysopsis — Ur. 972.
Chrysothamnus — Py. 2543.
Chusquea — Py. 2750, 2849.
Cichorium — Ur. 1055.
Cinchona — Ur. 1486. — Py. 1889, 2730, 2745, 2746, 3128, 3148.
Cirsium — Ur. 990, 992, 995, 996, 997. — Py. 2392.
Cissus — Ust. 1644 *ter*, 1645.
Cistus — Hy. 370. — Py. 1890, 2536.
Citharexylon — Py. 3074.
Citrus — Hy. 304. — Py. 1873, 2726, 2843.
Cladium — Py. 1864.

Cladophora — P. 1743.
Clathorix — Ust. 1656.
Clarionea — Ur. 1027.
Clematis — Ur. 1202, 1458. — Py. 2351, 2472, 2634. 2635, 2838.
Clerodendrum — Ur. 1393, 1495, 1496. — Py. 1847.
Clethra — Ur. 1331.
Clibadium — Hy. 190. — Ur. 1365.
Clidemia — Py. 1806.
Clitandra — Ur. 1503.
Clitoria — Ur. 860.
Cnicus — Ur. 991.
Coccides — Py. 2836, 2848.
Coccoloba — Py. 3010.
Cochlearia — Ur. 1196.
Cocos — Ust. 1678. — Py. 1832, 2508, 3070, 3120, 3138.
Coffea — Hy. 432, 610, 631. — Py. 1872, 1875, 1876, 1878, 1880, 2004, 2018, 2057, 2156, 2726, 2728, 2744, 2745, 2757, 2811, 2823, 2828, 2834, 2989, 2997, 3022, 3032.
Collema — Py. 2427.
Collomia — Ur. 1400
Comarum — Py. 2384.
Combretum — Ur. 1540, 1541.
Commelina — Ur. 895, 1304.
Comptonia — Py. 2278.
Compositæ — Ur. 1058, 1059. — Py. 1870.
Conferva — P. 1741.
Coniferæ — Hy. 8, 32, 73, 127, 163, 174 403, 643. — Py. 1985.
Conium — Py. 2756.
Conocarpus — Py. 2449.
Conyza — Ur. 959.
Cooperia — Ur. 1231.
Copaifera — Py. 1815.
Copernicia — Py. 3149.
Coprinus — Hy. 336.
Corcoropsis — Ur. 925.
Cordia — Ur. 1498. — Py. 1807.
Cordylanthus — Ur. 1090.
Cornus — Hy. 626. — Py. 1887, 1893, 2265, 2387, 2464, 2599.
Coronilla — Py. 2140.
Correa — Py. 1882 *bis*.
Corticium — Py. 2714.
Cortusa — Ur. 1291.
Corylus — Hy. 492 *ter*, 565, 571 *bis* 599 *ter*, 614 *bis*, 620, 624 *bis* 641 *bis*, *ter*. — Py. 2282, 2291, 2429, 2613.
Cosmocladium — P. 1740.
Cosmus — Ust. 1637.
Coulterophytum — Ur. 1168.
Courtoisia — Ur. 1571.
Cousinia — Ur. 1001.
Coussapoa — Py. 1863.
Coutoubea — Py. 2956.
Cratægus — Hy. 446, 713. — Ur. 1438. — Py. 1896, 2206, 2387, 2566, 2568.
Crepis — Ur. 1037, 1039, 1053, 1478, 1479. — P. 1744.
Crinum — Ur. 1469.
Crotalaria — Ur. 1433, 1529, 1530.
Croton — Ur. 906. — Py. 2437, 2899, 3050, 3127.
Crucianella — Ur. 1079.
Cryptotænia — Ur. 1162.
Cuphæa — Ur. 1298, 1299.
Cucumis — P. 1765.
Cucurbita — P. 1765.
Cydonia — Py. 2270.
Cymboseris — Py. 1057.
Cynoctonus — Ur. 1135. — Py. 1821.
Cynosurus — Ur. 900.
Cyperaceæ — Py. 2315, 3106.
Cyperus — Ur. 1253, 1566. — Ust. 1630, 1631, 1632.
Cystoclenium — P. 1753.
Cytharexylon — Hy. 208, 407, 516
Cytisus — Ur. 1434. — Py. 2476.

Dacampia — Py. 2186, 2188.
Dalbergia — Ur. 1518, 1519.
Dalbergiaceæ — Py. 2969.
Dalechampia — Ur. 1417, 1418.
Dampiera — Ur. 1066.
Danthonia — Ur. 1577. — Ust. 1602, 1603, 1626.
Daphne — Py. 2398.
Daphnopsis — Py. 2972.
Daucus — Ur. 1411 *ter*.

Deeringia — Ur. 881.
Delphinium — Ur. 1459. — Py. 1774, 2136.
Derris — Ur. 1334. — Py. 2882, 2950.
Desmanthodium — Ur. 1029.
Desmodium — Ur. 858, 859, 1522, 1523.
Deutzia — Py. 1896, 2205, 2675.
Diapensia — Py. 2365.
Diaspis — Py. 2823.
Dichromera — Ust. 1599, 1674.
Dioliptera — Ur. 843.
Dictyoloma — Py. 3043.
Dierama — Ur. 1229.
Digitalis — Py. 2163.
Digitaria — Ust. 1606.
Diocles — Py. 2886.
Dioscorea — Ur. 1561.
Diospyros — Ur. 1406, 1407. — Py. 3030.
Diplachne — Ur. 1281.
Diplasia — Ust. 1601.
Diplothemium — Py. 3121.
Diplotomma — Py. 2530.
Dirca — Ur. 1254
Dissotis — Ur. 1542.
Distichlis — Ust. 1614.
Dolichotis — Py. 2059.
Dorema — Ur. 1167.
Doronicum — Ur. 967, 968.
Dorstenia — Ur. 1550.
Dracæna — Ust. 1598. — Py. 2509.
Draparnaldia — P. 1757.
Dryas — Py. 1983, 2143, 2210, 2237, 2245, 2481, 2482, 2990.
Drymaria — Ur. 1213.
Drymis Py. 3112.
Dulichium — Ur. 1252.
Duvaua — Py. 1340.
Durio — Py. 2891.
Dysoxylon — Py. 3008.

Ebenaceæ — Py. 2971.
Echinodorus — Ust. 1625.
Echinopis — Ur. 998.
Echinopteris — Ur. 1182.
Echium — Py. 2301, 2491, 2610.
Edwinia — Py. 2579, 2617.
Elæodendrum — Py. 3110.
Elæagnus — Ur. 1220. — Py. 1900.
Electra — Ur. 1080.
Elettaria — Py. 2753.
Eleusine — Py. 2920.
Elymus — Ur. 1278. — Ust. 1684. — Py. 2628.
Empetrum — Py. 1963, 2393.
Encephalum — Py. 2604.
Enkianthus — Ur. 1408.
Endocarpum — Py. 2184.
Endopyrenium — Py. 2230.
Entada — Ur. 1345.
Enteropogon — Ur. 1276.
Ephedra — Py. 2612.
Epicampes — Ur. 1275.
Epidendrum — Ur. 1555.
Epigæa — Py. 2366.
Epilobium — Ur. 1174, 1469 *bis*.
Equus — P. 1709.
Eragrostis — Ur. 898. — Ust. 1615. — Py. 2214.
Eranthis — P. 1767.
Erica — Py. 2236, 3081.
Ericaceæ — Ur. 903.
Erigeron — Ur. 960, 1247, 1357. — Py. 2165.
Eriocaulon — Ust. 1611 *bis*, 1668.
Eriochloa — Ust. 1650.
Eriogonum — Py. 2637.
Eriophorum — Py. 2333, 2624.
Eritrichium — Ur. 1395.
Eryngium — Ur. 1409.
Erythrina — Hy. 102. Py. 1885, 2344, 2785.
Escallonia — Py. 1957, 3046.
Eucalyptus — Hy. 78, 244. — Py. 2571, 2995, 3147.
Eucharis — Lr 1559.
Eugenia — Ur. 1539. — Py. 2145, 2927, 2938, 2970.
Eupatorium — Ur. 961, 962, 1477. — Py. 1995.
Euphorbia — Ur. 854, 855. 1415 — Py. 1780, 1781, 2485, 2531.
Euphorbiaceæ — Py. 1866.
Euphrasia — P. 1746.
Eupomatia — Py. 3062.

Euterpe — Py. 2009.
Eutrema — Ur. 1197.
Eutypa — Py. 1887. 2810.
Evolvulus — Ur. 1128.
Evonymus — Py. 2596.

Faba — Py. 2008.
Fagus — Hy. 30, 207, 341, 567, 596, 726, 731. — Py. 1981, 1990, 2023, 2170, 2387, 2441, 2459, 2460, 2505, 2543, 2569, 2736, 2774, 2940, 2988.
Fatoua — Ur. 885.
Fendlera — Py. 2353, 2545, 2653.
Ferula — Ur. 849, 1411, 1411 *bis*.
Ferulago — Ur. 848.
Festuca — Ust. 1612. — Py. 2700.
Ficus — Ga. 814. — Ur. 1551. — Py. 1942, 2008, 2012, 2082, 2741, 2933.
Fimbristylis — Ur. 1569.
Fimus — Hy. 292, 293, 294, 363, 364, 365, 367 *bis*. — P. 1684, 1686, 1689, 1690, 1705, 1716, 1718, 1719, 1720, 1725, 1727, 1728. — Py. 1784, 1794, 1796, 1797, 1799, 2027 ad 2055, 2091, 2254, 2345 ad 2348, 2350, 2353 ad 2559, 2720, 2758.
Flacourtiaceæ — Py. 3018.
Floerkea — P. 1770.
Floscopa — Ur. 1556.
Fourcroya — Py. 1966.
Frangula — Hy. 568, 616, 624 *ter*, 637, 645.
Franseria — Ur. 1024.
Frasera — Ur. 847, 1402.
Fraxinus — Hy. 246. — Ur. 1287, 1404. — Py. 1980, 2297, 2456, 2577, 2711, 2809.
Fritillaria — Ur. 890.
Fuirena — Ur. 1564.

Gadua — Py. 2844, 2981, 3034.
Gagea — Ur. 1223.
Galactia — Ur. 969.
Galasia — Ur. 1364.
Galatella — Ur. 970.
Galenia — Ur. 1215.
Galeobdolon — Py. 2486.
Galera — Py. 2796.
Galium — Ur. 1078, 1301. — Py. 2256, 2489.
Garcilassa — Ur. 1476.
Garcinia — Py. 2436, 2841, 3020.
Gardenia — Hy. 644. — Ur. 1490.
Gardoquia — Py. 3065.
Gasparrinia — Py. 1818, 2374.
Gastrolobium — Py. 2246.
Gaulteria — Py. 1862.
Gaylussacia — Py. 2909.
Gayophytum — Ur. 1171.
Gelatina — P. 1685, 1687, 1688, 1703, 1721, 1722, 1723, 1724.
Geophila — Ur. 1483.
Geranium — Ur. 856, 1421.
Gerardia — Ur. 1089.
Geum — Py. 1853.
Gladiolus — Ur. 891.
Glechoma — Py. 2164.
Gleditschia — Py. 3136.
Gloeosporium — P. 1737.
Glyceria — Py. 2520, 2629.
Glycine — Ur. 1520. — Py. 2386.
Glycosma — Py. 2149.
Gnaphalium — Py. 1805, 2201.
Gomphrena — Ur. 1216.
Gonospermum — Ur. 1023.
Goodenia — Py. 2147.
Gossypium — Py. 1785.
Grabowskia — Ur. 1293.
Graminaceæ — Hy. 100. — Py. 2227, 2228, 2371, 2627, 2706, 2754.
Grevillea — Py. 1814.
Grewia — Py. 2202.
Grindelia — Ur. 1363. — Ust. 1658 *bis*
Guardiola — Ur. 1022. — Ust. 1657.
Guarea — Hy. 66. — Ur. 1429, 1430. — Py. 3009.
Guatteria — Ur. 1446, 1447, 1448, 1449.
Guettarda — Py. 3035.
Gyalolechia — Py. 2328, 2772.
Gymnogramme — Ur. 1582.
Gymnopogon — Ur. 1272. — Py. 2942.
Gynerium — Py. 2630, 2982, 3029.
Gyrophora — Py. 2007, 2329.

Habenaria — Ur. 1465.
Hæmatoxylon — Hy. 448.
Hæmodorus — Ur. 1233.
Hamamelidis — Ur. 1412.
Haplophyllum — Ur. 1516.
Hedera — Py. 1941, 2306, 2379, 2993.
Helenium — Py. 2391.
Helianthella — Ur. 1021, 1362.
Heliconia — Py. 2959.
Helinus — Ur. 1510.
Heliocarpus — Ur. 1177.
Heliopsis — Ur. 973.
Heliotropium — Ur. 1121.
Helleborus — Py. 2672.
Heppia — Py. 2325, 2327.
Heracleum — Ur. 1156, 1157. — Py. 2448.
Hertia — Py. 2154.
Hesperaloe — Py. 1993.
Heteropteris — Ur. 1181. — Py. 3071.
Heterosphæria — Py. 2819.
Hevea — Py. 2690, 2955.
Hibiscus — Ur. 1255, 1515. — Py. 2218, 2890, 3085.
Hieracium — Ur. 1014. — Py. 2257.
Hilaria — Py. 2847.
Hippophæ — Py. 2022, 2305, 2503.
Hoffmannia — Hy. 147.
Holcus — Ur. 1271.
Homolanthus — Ur. 1020.
Hordeum — Ur. 1263, 1273. — Ust. 1659.
Houstonia — Ur. 1072.
Humiria — Py. 3007.
Humulus — Py. 2824.
Hura — Py. 2974.
Hyacinthus — Py. 2008.
Hyalotheca — P. 1740.
Hydrangea — Ur. 1440.
Hydrocharis — Ust. 1634, 1671.
Hyoscyamus — P. 1769.
Hypericum — Py. 2293, 2375, 2376, 2576, 3097.
Hyphæne — Py. 1869.
Hypochœris — Ur. 1031.
Hypocrella — Py. 2741.
Hypoxylon — Py. 2842.
Hyptis — Ur. 1118, 1493. — Py. 1811, 1828.

Icerba — Py. 3187.
Ichnaspis — Py. 2823.
Ilex — Hy. 429. — Py. 2381, 2564, 3040, 3109, 3146 *bis*.
Impatiens — Ur. 1179.
Imperata — Ur. 1264.
Inga — Ur. 871, 1528. — Py. 3076, 3126.
Indigofera — Ur. 869, 870.
Insecta — Py. 2852 ad 2871. — La. 3160 ad 3225.
Inula — Ur. 1361. — Py. 2701.
Ipomœa — Ur. 1067, 1129, 1294, 1295, 1296, 1297, 1388. — Py. 2897.
Iponema — Hy. 405. — Py. 1851.
Iriartia — Py. 2760.
Iris — Ur. 1227. — Py. 2312, 2511, 2624, 2693, 2694, 2695, 2696.
Ischnosiphon — Ur. 1558.
Iseilema — Ust. 1617.
Isoglossa — Ur. 1383.
Ivesia — Ur. 1828.

Jacquemontia — Ur. 1401.
Jambosa — Ur. 1175.
Jasminum — Ur. 1137, 1138, 1403.
Jasonia — Ur. 1472.
Jatropha — Ur. 853.
Johannesia — Ur. 1514.
Jostephane — Ur. 1019.
Juglans — Py. 2340, 2405, 2504, 2614, 2660, 2691, 2808.
Juncus — Ur. 1239, 1563. — Py. 2413, 2514, 2698.
Juniperus — Hy. 449. — Ga. 787. — — Ur. 927, 928, 929. — Py. 1944, 2166, 2280, 2838, 2546, 3084.
Jurinea — Ur. 993.
Jussiæa — Ur. 1172.

Kentia — Py. 2619.
Knautia — Py. 502.
Körberiella — Py. 2422.
Kraunhia — Ur. 918.

Kretzschmaria — Py. 2769, 2770.
Krigia — Ur. 1018.
Kundmannia — Ur. 1169.

Lactuca — Ur. 1032, 1033, 1034, 1040, 1245.
Laguncularia — Py. 1845.
Lappa — Ur. 985.
Larix — Hy. 346, 453, 514, 654. — Py. 2457, 3145.
Laserpitium — Ur. 1155. — Py. 2873.
Lathyrus — Py. 2488.
Lauraceæ — Py. 1959, 1960, 2893, 2894, 2895, 2896, 2931, 3072.
Lauxania — P. 1732.
Leandra Py. 2930.
Lecania — Py. 2000.
Lecanora — Py. 2002, 2193, 2200, 2423.
Lecidea — Py. 2194, 2322, 2324, 2330, 2466, 2467, 2471, 2773.
Lecidella — Py. 2232.
Lecythidaceæ — Py. 1787.
Lecythis — Py. 2122.
Ledum — Ur. 1313 *bis*.
Leguminosæ — Py. 1838, 1919, 2968.
Leonotis — Ur. 1110.
Leontice — Ur. 1455.
Leontodon — Ur. 1035.
Lepachys — Py. 1958.
Lepargyrea — Py. 1894.
Lepidagathis — Py. 1822.
Lepidium — Py. 2586.
Lepidobolus — Ust. 1669.
Leptochloa — Ust. 1605.
Leptogium — Py. 2424.
Leschenaultia — Ur. 1065, 1372.
Leucæna — Ur. 1347.
Leucas — Ur. 1115.
Leuceria — Ur. 1060.
Leucobryum — Hy. 655. — Ga. 795.
Leucopogon — Py. 2249.
Leucopsis — Py. 3066.
Leuzea — Ur. 1017.
Liabum — Ur. 1318.
Lianæ — Py. 2820.
Libertia — Py. 3057.
Libocedrus — Ur. 926.
Ligna — P. 1717.
Ligusticum — Ur. 1139.
Ligustrum — Py. 2334.
Lilium — Ur. 1466.
Linaria — Pk. 2221.
Lindsæa — Ur. 1545.
Linum — Ust. 1639. — Py. 2621.
Lippia — Ur. 1122, 1123, 1124, 1394, 1494. — Py. 1843, 2493.
Liriodendron — Py. 2061.
Lithoicea — Py. 2185.
Lithospermum — Ur. 1396. — Py. 2556.
Litsea — Ur. 1198. — Py. 1802, 1840, 2580.
Lobeliaceæ — Py. 1848.
Locusta — P. 1682, 1683.
Lomatia — Py. 1867.
Lonchocarpus — Ur. 1309, 1521. — Py. 1850, 2285, 2946, 2985.
Lonicera — Hy. 708. — Py. 2159, 2400.
Lopadium — Py. 2583.
Lophanthus — Ur. 1114.
Loranthus — Py. 1823.
Lugoa — Ur. 1016.
Lupinus — Ur. 862. — Py. 2477, 2478, 2580.
Luzula — Ur. 1238. — Ust. 1632 *ter*. — Py. 1973, 2175, 2414, 2623.
Lychnis — Ur. 877.
Lycium — Ur. 1094.
Lycopodium — Py. 1974.
Lycurus — Ust. 1616.

Macaranga — Py. 1790, 1819.
Machærium — Py. 1953, 2878, 2879, 2947.
Machilus — Ur. 1445.
Macrosiphonia — Py. 2910.
Macrozamia — Py. 1996.
Madia — Ur. 963, 1310 *bis*.
Magnolia — Py. 1915, 2139, 2362, 2377, 2642.
Mahonia — Ur. 1452. — Py. 3135.
Majanthemum — Py. 2641.
Malpighiaceæ — Py. 3017, 3113.
Malvastrum — Py. 3041.
Mangifera — Hy. 256, 515. — Py. 1877, 2872.

Manihot — Hy. 536. — Py. 1810, 1854, 2666.
Manisurus — Ur. 1309 *bis*.
Maprounea — Ur. 1414, 1513. — Py. 2898.
Maranthaceæ — Py. 3078.
Maregravia — Py. 3073.
Marchantia — Py. 2299.
Marsdenia — Ur. 1130, 1134.
Mauritia — Py. 1846, 1978, 2806.
Maxillaria — Py. 2762.
Medicago — Ur. 1517. — P. 1748. — Py. 1927.
Melaleuca — Hy. 417. — Py. 2904, 2994.
Melananthus — Ur. 1385.
Melasphærula — Ur. 894.
Melastoma — Py. 3006.
Melia — Py. 2745, 2815.
Meliaceæ — Py. 2239, 2386, 2951.
Melica — Ur. 1268.
Melicytus — Py. 2943.
Melilotus — Py. 2588.
Meliola — Py. 1824.
Meliosma — Hy. 407.
Memora — Ur. 1088, 1491. — Py. 3052.
Meniscium — Py. 1789.
Mentha — Py. 2562.
Mentzelia — Ur. 1310, 1544.
Menziesia — Hy. 719. — Ur. 1313.
Mercurialis — Ur. 862, 1416, 1586.
Mertensia — Ur. 1398.
Metastelma — Ur. 1132.
Miconia — Py. 2822, 2928.
Microchloa — Ur. 899.
Microlonchus — Ur. 980.
Micromeria — Ur. 1111.
Microtis — Ur. 886 *bis*.
Mikania — P. 1761. — Py. 2954.
Millettia — Py. 1937.
Mimosa — Ur. 1336. — Py. 2141.
Mirabilis — Py. 1924.
Modiola — Ur. 1186.
Mogiphanes — Ur. 1546.
Monardella — Ur. 1119.
Molinia — Py. 2179, 2520.
Monimia — Hy. 186.
Monnina — Py. 2877
Monopsis — Ur. 1450.
Monotes — Py. 2433.
Morus — Ur. 1464, 1549. — Py. 2008.
Moschosma — Ur. 1392.
Mucor — P. 1704, 1726.
Mucuna — Py. 2218, 2386.
Mühlembergia — Ur. 1255. — Ust. 1618, 1619.
Mulgedium — Ur. 833, 1036.
Musa — Hy. 353.
Musaceæ — Py. 2851.
Musca — P. 1732.
Mutisia — Ur. 1028. — Py. 2907.
Myosotis — Ur. 1292.
Myrceugenia — Py. 3067.
Myrsine — Py. 1803, 2901.
Myrrhinium — Py. 3068.
Myrtaceæ — Hy. 607. — Py. 2996, 3019.
Mytilaspis — Py. 2726.

Nastanthus — Ur. 1064. — P. 1760.
Negundo — Py. 2016.
Nicotiana — Ur. 1492. — P. 1769.
Noctua — Py. 2835.
Nolina — Ust. 1670.
Nummularia — Py. 1800.
Nyssa — Py. 2359.

Ochrolechia. — Py. 2526.
Ocotea — Py. 2892, 2953.
Œdogonium — P. 1739, 1752.
Œnanthe — Ust 1638.
Œnothera — Ur. 1244. — Py. 2595.
Olea — Hy. 609. — Py. 1891, 3031, 3151.
Olyra — Ur. 1573. — Py. 1830.
Omphalaria — Py. 2229.
Oncidium — Ur. 1553, 1554.
Onoclea — Ur. 921.
Onopordum — Ur. 986, 987, 1001, 2594.
Opegrapha — Py. 2001.
Operularia — Ur. 1073.
Ophelia — Ur. 1505.
Ophioceras — Py. 2816.
Ophiopogon — Ur. 1558.

Opulastrum — Py. 2385.
Opuntia — Py. 1836, 2710, 3108.
Orchideæ — Py. 2749.
Orchis — P. 1715.
Origanum — Ur. 1108, 1109. — Py. 2395.
Orthoclada — Py. 2850.
Orthosiphon — Ur. 1117.
Oryza — P. 1680, 1700, 1710, 1711, 1712.
Oryzopsis — Ur. 1267.
Osmodium — Ur. 1397.
Osmunda — Ur. 924.
Ossa — Py. 2044.
Ostrya — Hy. 93, 561.
Otiophora — Ur. 1074.
Otopappus — Ur. 971.
Oxalis — Py. 2367.
Oxylobium — Py. 2247.
Oxypetalum — Ur. 846.
Oxyria — Py. 1926.

Pæderia — Ur. 1487.
Pæonia — Py. 2008.
Palicurea — Ur. 1482.
Palmæ — Hy. 162, 245. — Py. 1786, 1844, 2124, 2657, 2763, 3027.
Panax — Ur. 1509.
Pandanus — Py. 2204, 2515, 3058.
Panicularia — Ur. 1266.
Panicum — Ur. 1257, 1265, 1285, 1574, 1575. — Ust. 1606, 1607, 1675. — Py. 1855, 2180, 2417, 2922.
Papaver — P. 1766. — Py. 2473.
Papilionaceæ — Py. 1950, 1951, 2597.
Parietaria — Hy. 718.
Parkia — Py. 2949.
Parlatoria — Py. 2726, 2803.
Parmelia — Py. 2199, 2425, 2549.
Parnassia — Ur. 902, 1191. — Py. 2148.
Parrya — Ur. 1290.
Paspalum — Ur. 1567. — Ust. 1620, 1655. — Py. 2963, 2984.
Passiflora — Ur. 1427, 1428. — Py. 3045.
Patagonium — Ga. 753.
Patrinia — Ur. 1371.
Paullinia — Py. 1868.
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